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UNITED STATES MARINE CORPS MARINE CORPS BASE

MARINE CORPS BASE QUANTICO, VIRGINIA 22134-5001

> MCBO P5100.1C B 51 25 MAY 07

MARINE CORPS BASE ORDER P5100.1C

From: Commander

To: Distribution List

Subj: MARINE CORPS BASE, QUANTICO SAFETY AND OCCUPATIONAL HEALTH

PROGRAM (SHORT TITLE: MCBQ SAFETY PROGRAM)

Ref: (a) MCO P5102.1

(b) NAVSEAINST 8023.11

(c) MCO 5100.29

- (d) NAVMC 5100.8
- (e) MCO 5100.19E
- (f) MCBO 5560.2C
- (g) 29 CFR 1910
- (h) 29 CFR 1960
- (i) Occupational Safety and Health Act (OSHA)
- (j) Executive Order 12196
- (k) Federal OSH Programs
- (1) EM-385
- (m) ANSI C18.1
- (n) Service Contract Act of 1965
- (o) NFPA-101
- (p) ANSI Z358.1
- (q) Public Law 91-596
- (r) MCO 3500.27
- (s) MCBO P5100.1
- (t) MCBO 12810.1
- (u) MCBO 6260.1
- (v) 29 CFR 1926
- (w) ANSI Z358.1
- (x) MCO 5104.1B
- (y) ANSI Z41.1
- (z) ANSI Z89.1
- (aa) ASTM D 120-87
- (bb) ASTM D 178-88
- (cc) ASTM D 1048-88
- (dd) ASTM D 1049-88
- (ee) ASTM D 1050-90
- (ff) ASTM D 1051-87
- (gg) MCO 5100.30
- (hh) DoDI 1000.3
- (ii) MCO 1710.30
- (jj) Handbook for Public Playground Safety
- (kk) MCO 3570.1B

- (11) NAVMED P5010.4
- (mm) DoDI 6055.1
- (nn) FMFM 0-8
- (oo) United Tournament Karate Rule Book
- (pp) NSC Recreation and Off-Duty Resource Manual (NOTAL)
- (qq) MCO P11240.106
- (rr) TM 11275-1514
- (ss) ANSI Z136.1
- (tt) SECNAVINST 5100.14C
- (uu) SPAWARINST 5100.12
- (vv) BUMEDINST 6470.23
- (ww) OPNAVINST 5100.23
- (xx) MCBO 6260.2
- (yy) MCO 6260.2
- (zz) MCO 6260.1
- (aaa) MCBO 6200.1
- (bbb) DoDI 6055.4
- (ccc) MCO 5100.19
- (ddd) MCBO 11240.2
- (eee) DoDI 6055.1
- (fff) 40 CFR 745
- (ggg) 29 CFR 1025
- (hhh) MCO 5104.3A
- (iii) NAVMED P-5055
- (jjj) 40 CFR 763
- (kkk) OPNAVINST P5100.23
- (111) 40 CFR 61
- (mmm) Code of Virginia, Title 54
- (nnn) CNO letter 6240 Serial N454D/7U595923 of 30 Jun 97
- (000) NAVMC DIR 5100.1
- (ppp) MCBO P5100.1

Encl: (1) LOCATOR SHEET

- 1. <u>Purpose</u>. To establish policy and provide guidelines, principles, and procedures for the administration and conduct of the installation Safety and Occupational Health (SOH) and Explosives Safety Programs. The manual shall be implemented per the references and supplement higher authority directives to assist the MCBQ Safety Programs in fulfilling his responsibilities as addressed in the above references.
- 2. <u>Cancellation</u>. MCBO P5100.1B, MCBO 6260.1A, MCBO 6260.3A, and MCBBul 5420.
- 3. <u>Summary of Revision</u>. This revision contains a significant number of changes and should be reviewed in its entirety.

4. Background

- a. Reference (i) became law in 1970, but was applicable primarily to private industry. Reference (j) was signed by the President on 26 February 1980 to guarantee equal SOH protection to Federal civilian and military personnel.
- b. Coupled with the OSHA, executive orders, and higher headquarters safety and health directives, the Commander, Marine Corps Base, Quantico (Comdr MCBQ) has published this SOH manual to ensure safe and healthful places and conditions of employment for all military and civilian appropriated and non-appropriated fund workers, working aboard Marine Corps Base, Quantico (MCBQ). The SOH Program (hereafter referred to as "MCBQ Safety Program") is a Marine Corps Program and applies to all workers (military and civilian), family member, students, tenants, contractors, and visitors aboard the MCBQ.

5. Policy

- a. It is the policy of the Comdr MCBQ to implement a proactive mishap prevention program that establishes force protection, preserves war-fighting, and supports manpower, equipment, and material to the extent possible through the application of an effective and continuous safety program, to include explosives safety, and occupational health program.
- b. All levels of command shall establish and maintain an aggressive force protection SOH program to enhance training and the Marine Corps war-fighting capability by preventing mishaps and reducing personnel and material losses aboard MCBQ.
- c. Force protection, including hazard awareness and risk management, shall be fundamental elements in all aspects of MCBQ operations and training.
- 6. <u>Scope</u>. This manual applies to all military and civilian personnel, to include their family members, while on MCBQ. It applies to all Marine Corps facilities, equipment, and materials and is in effect on and off MCBQ, as applicable. It also applies to tenant activities as reflected in the host/tenant agreements, interservice support agreements (ISSA), and to contractors.

7. Responsibilities

a. <u>Commander</u>, <u>Marine Corps Base</u>, <u>Quantico</u>. Overall, is responsible for compliance with the Marine Corps SOH standards and

this program per the references.

- b. <u>Director, Safety Division</u>. Develop and monitor the SOH program at MCBQ on behalf of the Comdr MCBQ for all activities per the references, directives, and ISSAs. The Director, Safety Division reports directly to the Comdr MCBQ per reference (c).
- c. Commanders/Activity Heads. The conduct and implementation of an effective safety and health program is a basic leadership responsibility. This commences with the most senior commanding general and includes all levels of leadership as well as the individual Marine and civilian worker. Commanders/Activity heads are responsible to institutionalize, implement, and sustain an aggressive SOH Program within their commands or activities. The following are minimum requirements outlined in references (a), (b), (c), (d), and (e). Other requirements and responsibilities are contained throughout this manual.
- (1) Appoint, in writing, at least one knowledgeable officer, noncommissioned officer, (sergeant or above), or civilian worker to represent the commanders/activity heads as the Unit Safety Representative (USR). Updates of this appointment are required no later than 30 October each fiscal year. A copy of the USR appointment letter is to be sent to the Comdr MCBQ (B 51). Minimum appointment time is 18 months.
- (2) Budget for and procure all safety devices and government furnished personal protective equipment necessary for the type of work being accomplished.
- (3) Ensure mishaps involving personnel and/or government property are investigated and reported per reference (a) and this manual. This includes preparation and submission of mishap investigation reports to Safety Division, Headquarters, Marine Corps, as appropriate, ensuring the Safety Division and Naval Safety Center are information addressees.
- (4) Ensure mishap prevention and safety program instructions are current and maintained by supervisors for their organization.
- (5) Ensure that standing operating procedures are written on all hazardous duties performed within their command/activity, as determined by the supervisor of the work section.
- (6) Ensure the Safety Division is notified of all mishaps involving personal injury or property damage (government) within 24

hours. The Director, Safety Division must be immediately notified telephonically (703-784-2866 or through the Command Duty Officer) of all serious injuries and/or fatal mishaps.

- (7) Using commands will ensure short term contractors, hired through the Government-wide Purchase Credit Card (GPCC) process, are aware of the necessity to follow all OSHA requirements, as a minimum, when conducting business on MCBQ. Safety Division reserves the right to approach GPCC contractors performing work using questionable safety practices.
- d. The Assistant Chief of Staff (AC/S), G-5. The AC/S, G-5 will ensure that all construction, maintenance, and service contracts contracted by Public Works Branch or the Regional Contracting Office contain clauses requiring contractors comply with reference (1), the Marine Corps, and MCBQ safety precautions and regulations. Contract monitors will enforce mandatory safety requirements on all contractor operations to ensure MCBQ personnel and property are not exposed to unsafe or unhealthful conditions. MCBQ will not provide safety training for contract employees.
- e. <u>Supervisors</u>. Supervisors are the key to a successful mishap prevention program. They, particularly first line supervisors, have direct daily contact with the work force and operations under their cognizant authority, and are in the best position to influence safe work practices and behavior. To ensure a proactive approach to mishap prevention, supervisors shall:
- (1) Provide personnel under their direct supervision, and document, worker safety training designed to identify the following per reference (h):
- (a) Follow policies, procedures, and programs contained in this manual and in their activity/shop safety programs and SOPs that apply to their operations.
- (b) Identify hazards and safety precautions for all machines, tools, chemicals, equipment, and work processes/environments that they use or are subjected to in the performance of their duties.
- (c) Require the proper use and care of, safety equipment, clothing, and other protective equipment necessary to protect workers working in potentially hazardous/unhealthy environments.
 - (d) Mishap notification procedures.

- (2) Maintain records of training to keep activity and commanders/activity heads informed of training problems.
- (3) Initiate appropriate abatement and follow-up action until abatement has been completed for any unsafe or unhealthful condition or act involving their personnel, geographical area, or operation.
- (4) Conduct weekly walk-through inspections of their area(s) of responsibility to detect and eliminate any unsafe or unhealthful conditions. Any hazardous conditions noted and corrective actions taken must be documented.
- (5) Ensure workers are provided with required personal protective equipment (PPE), and **enforce** the use of required PPE by all workers.
- (6) Report all "lost work day" or "no lost workday" mishaps to the Safety Division and the USR, and commence a thorough mishap investigation.
- (7) Ensure that all personnel receive thorough and continuous, supervisor conducted, worker safety orientation and training designed to prevent mishaps and encourage/enforce work safety per reference (g). Assistance is available from the Safety Division. Contract employees must receive safety training prior to placement within MCBQ.
- (8) Ensure DD Form 2272, DoD SOH Protection Program, is completed and posted in primary work centers. These forms are available at the Defense Self-Service Store and from the Safety Division website.
- (9) Post a copy of the Commander's Safety Policy Letter in each work center/section. Copies can be obtained by contacting the Safety Division, Lejeune Hall, Room 101.

f. Unit Safety Representative

- (1) Attend an initial USR training program conducted by the Safety Division within 30 days of being designated a USR, or attend the 2-week Ground Safety for Marines course within 90 days of appointment.
- (2) Keep commander/activity head appraised of safety issues affecting their organization.

- (3) Act as the supervisor's point of contact for safety matters.
- (4) Conduct building/workplace inspections on a monthly basis maintaining records of all safety/health discrepancies, corrective actions/abatement procedures.
- (5) Oversee the completeness of applicable safety instructions within individual organizations.
- (6) Maintain a turnover notebook of applicable instructions, guidelines, checklists, and information germane to a particular USR position.
- (7) Work with supervisors to initiate corrective action, with guidance from the Safety Division, if necessary, for identified hazards.
- (8) Initiate, advise, and oversee the submission of all required mishap reports per reference (a) and chapter 5 of this manual.
- (9) Attend and participate in bimonthly USR meetings scheduled by the Safety Division.
- g. <u>All Personnel</u>. All personnel are responsible for knowing, understanding, observing, and adhering to all safety requirements applicable to their duty and work area. In addition, each individual is responsible for the following:
- (1) Reporting to work rested, physically and emotionally prepared for any task assigned.
- (2) Using normal caution, common sense, and foresight in work.
- (3) Reporting to their immediate supervisor any and all practices, conditions, equipment, or material which they consider unsafe.
- (4) Warning others that they believe to be endangered by known hazards, or of their failure to observe and comply with SOH requirements, and of possible developing hazards.
- (5) Reporting immediately to their supervisor any mishap or injury, or evidence of impaired health in the course of work, regardless of how minor.

- (6) Wearing/Using protective clothing/equipment of the type required, approved, or supplied for the safe performance of their particular work assigned. The supervisor will ensure protective clothing/equipment availability.
- (7) Certain hairstyles and beards are hazardous around machinery and open flame, and beards, as well as some hairstyles, interfere with vision or the use of respiratory protective devices. Such interference will cause the worker to be removed from hazardous work areas until corrected.
- (8) Wearing safety shoes, boots, or foot protection devices which could include conductive/nonconductive shoes while working in areas identified as foot hazards. The supervisor will have or obtain the proper safety shoes/boots.
- (9) Not wearing jewelry, rings, necklaces, loose scarves, ties, or loose clothing, which might subject the wearer to additional hazards while working in areas so identified.
- 8. $\underline{\text{Action}}$. The provisions contained in this manual are obligatory and will be implemented through the chain of command throughout military and civilian components of MCBQ and tenant activities.
- 9. <u>Recommendations</u>. Recommendations concerning the MCBQ SOH manual are invited. Such recommendations will be forwarded to the Comdr MCBQ (B 51) via the appropriate chain of command.
- 10. Certification. Reviewed and approved this date.

Marles L. Dallachie CHARLES A. DALLACHIE

DISTRIBUTION: A

LOCATOR SHEET

Subj:	MARINE	E CORPS	BASE,	QUANTIC	SAFETY	AND	OCCUPATIONAL	HEALTH
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RECORD OF CHANGES

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CHAPTER 1

SAFETY PROGRAM MANAGEMENT

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CHAPTER 1

SAFETY PROGRAM MANAGEMENT

1000. GENERAL

- 1. The purpose of the safety program at Marine Corps Base, Quantico (MCBQ) is the preservation of resources while accomplishing the command/activity mission. Every Marine Corps member injured, while on or off-duty, civilian worker, and every piece of equipment or vehicle damaged reduces Marine Corps effectiveness and degrades mission accomplishment.
- 2. Safety awareness is the responsibility of everyone aboard MCBQ. Although overall safety program management oversight falls under the Safety Division, implementation of safety programs is the responsibility of commanders, activity heads, supervisors, and workers. Commander/Activity head interest and involvement coupled with supervision are the keys to preventing mishaps.
- 3. Knowledge, dedication, integrity and professionalism are the cornerstones to successful mission accomplishment. A positive proactive attitude towards safety, its purpose, method and logic, is the foundation on which these cornerstones are laid. Safety is above all else, the attitude that mishaps can be prevented while accomplishing the mission.
- 1001. <u>SAFETY PROGRAM MANAGEMENT AND STAFFING</u>. Per references (c) and (d), Safety Division is established as a special staff function of the Commander, Marine Corps Base, Quantico (Comdr MCBQ) to provide MCBQ with a complete and fully coordinated staff for overall management of the MCBQ Safety Program.
- 1002. <u>SAFETY COUNCILS AND COMMITTEES</u>. As directed in reference (d), the following safety councils/committees are hereby established and will meet on a regular basis as required by this manual:
- 1. <u>Base Safety/Safe Drive Council</u>. Per reference (d) and this manual, the Chief of Staff (C/S), MCBQ, by direction of the Comdr MCBQ, chairs the council. The council will meet on or about the third Thursday of October, January, April, and July of each year at 0900. The Director, Safety Division will provide members with a proposed agenda approximately 7 days prior to each

meeting. Using the guidance in references (c), (d), and (h), the commanders/activity heads or their executive officers/deputies identified below are established as members of the Base Safety Council. Attendance and participation by members is crucial to the success of this council.

- a. C/S MCBQ (Chairperson).
- b. Director, Safety Division (Recorder).
- c. CO, Headquarters and Service Battalion (HqSvcBn).
- d. CO, Security Battalion (SctyBn).
- e. CO, Marine Corps Embassy Security Command.
- f. AC/S, G-1.
- g. AC/S, G-3.
- h. AC/S, G-4.
- i. AC/S, G-5.
- j. AC/S, G-6.
- k. Federal Employees' Compensation Act Coordinator.
- 1. Director, Facilities and Logistics Services Section (FLSS).
- m. Director, Marine Corps Community Services Division.
- n. Director, Comptroller Division.
- o. Director, Reserve Support Unit.
- p. Command Chaplain.
- q. Command Inspector General.
- r. Health Care Advisor, (CO, Naval Health Clinic (NHCL)).
- s. Staff Judge Advocate (SJA).
- t. Public Affairs Officer (PAO).
- u. CO, Marine Corps Air Facility (MCAF) (represents CO, Marine Helicopter Squadron-One, as necessary).

- v. C/S, Marine Corps Systems Command.
- w. C/S, Education Command.
- x. C/S, Training Command.
- y. CO, The Basic School (TBS).
- z. CO, Officer Candidate School (OCS).
- aa. CO, Weapons Training Battalion (WTBn).
- bb. Commander's Counsel.
- cc. Manpower and Reserve Affairs Division, Headquarters, Marine Corps.
 - dd. Fire Chief, Fire Department.
- ee. President, American Federation of Government Employees (AFGE), Local 1786 (two seats).
 - ff. Others as desired or necessary.
- 2. Mission. The primary mission of the council is to:
- a. Recommend safety policy and provide guidance and oversight for the Comdr MCBQ.
- b. Assist commanders, activity heads, and tenant activity heads in the implementation and execution of their organizational safety program.
- c. Review mishap statistics and selective accident reports which show developing trends. Members will forward to the Comdr MCBQ (B 51) plans and procedures to effectively reverse unfavorable trends and reduce or eliminate hazardous conditions which cause mishaps.
- d. Recommend changes in policies or procedures to minimize unsafe acts or conditions.
- e. Plan educational and promotional efforts designed to create and maintain interest in force protection and promote increased emphasis on mishap prevention.
- f. Review the minutes of the Supervisors' Safety Committee meeting for necessary action by the council.

- g. Review actions taken to improve traffic safety issues addressed by the Safe Driving Council AD HOC Committee.
- h. Each member of the Base Safety Council will appoint, in writing to the Director, Safety Division (B 51), a Safe Drive Working Group member. Members shall be available to work traffic flow and safe driving issues as directed by the Base Safety Council.

3. Safe Drive Working Group

a. General Procedures

- (1) Traffic/Safe driving concerns are generated whenever someone believes there is cause for concern or a violation of traffic codes. With that comes the task of reviewing/investigating these concerns to ascertain their validity. The Chairperson, Safe Drive Working Group will contact the appropriate Working Group member(s) to review each concern presented and recommend appropriate action.
- (2) The Working Group will meet monthly as scheduled by the Chairperson. Agenda, surveys, and a planned course of action to address each concern/issue are at the discretion of the Chairperson.
- (3) Working Group recommendations to issues/concerns that are surfaced between quarterly Safe Drive Council meetings will be forwarded to the Recorder (Director, Safety Division) for review and coordination with council members and the Chief of Staff. Final approval will come as expeditiously as possible to implement actions by the Working Group. After approval, work requests will be coordinated through the Chairperson to ensure actions and risk assessments are adequately addressed.

b. Specific Procedures

- (1) The Chairperson, Safe Drive Working Group will:
- (a) List the issues/concerns in the Safety Division Safe Driving Working Group Issues database as "New Business."
- (b) After appropriate action, review and determine that proposed action is approved, the concern is given to the Provost Marshall Office for request submission to the AC/S, G-5 (FLSS) as a Safe Drive Council work request.

- c. Committees will meet quarterly or more frequently if circumstances warrant, at the direction of the chairperson. The chairperson will ensure copies of meeting minutes are signed and forwarded to the unit commander/activity head, the shop/work section safety committee, and the Safety Division.
- d. Commanders/Activity heads of organizations identified below and all commands/activities with 500 or more military and civilian personnel will appoint mid-level management representatives from each branch or major section. Membership shall be open to a civilian employee representative when the Supervisor's Safety
- (c) Add the work request number to the database to facilitate tracking as a new business.
- (d) Reconcile all "current" projects with the G-5 representative and the Provost Marshall Office weekly for the Commander's Weekly Status Report and monthly during the meeting in order to maintain accuracy and accountability.
- (e) Conduct monthly Working Group meetings with all members to discuss and reconcile concerns, "current" and any "new business" concerns that may have been received.
- (f) Submit attendance rosters and meeting minutes to the Director, Safety Division after every monthly meeting.
- (g) Consolidate status reports into quarterly presentations to the Safe Drive Council.
- (2) The AC/S, G-5 member is the focal point for preparing and submitting work requests and conducting follow-up actions to report status of pending actions to the Safe Drive Council. Security Battalion will provide a block of numbers for use with these work requests to facilitate reconciliation and tracking.
- (3) All members will attend monthly meetings and participate in surveys and discussions on an as needed/requested basis.

c. Members

- (1) Working Group members will be assigned from the following units/organizations:
- (a) Safety Division (Staff Noncommissioned Officer-in-Charge, Drivers' Training Branch) Committee Chairman.

- (b) AC/S, G-5.
- (c) SctyBn.
- (d) MCAF.
- (e) AC/S, G-4 (Motor Transport Branch).
- (f) NHCL.
- (g) PAO.
- (h) SJA.
- (i) AC/S, G-3 (Range Management Branch).
- (j) OCS.
- (k) TBS.
- (1) WTBn.
- (m) Marine Corps University.
- (n) AFGE Local 1786.
- (2) Each member will be assigned, in writing, to serve on the Working Group. Each member is expected to attend the Working Group meetings. The Chairperson will maintain copies of the assignment letters in Safety Division files.

4. Unit Supervisors Safety Committees

- a. The primary objective of the committee is:
- (1) To act as a mid-level management action group to interface with shop safety committees and the Base Safety Council (through its membership). This "unit" reports to the commander/activity head on its activities and makes recommendations to issues that need a higher level policy decision.
- (2) To develop activity minutes for the record and for the Base Safety Council's review, if appropriate.
 - (3) To comply with objectives contained in reference (c).

- b. Committee purposes are outlined in reference (c). Pursuant to those five purposes, committees shall address issues/concerns elevated by the shop/work sections safety committees. A chairperson will be elected or appointed yearly. A recorder will be appointed by the chairperson. Issues that cannot be resolved or implemented by committee members will be elevated to the commander/activity head. Issues or actions that may affect other organizations should be presented by the commander/activity head to the Base Safety Council as new business items. Committees should review Base Safety Council minutes distributed by the Safety Division
- . Committee contains or represents civilian employees. Appointees will be replaced as assignments dictate; however, members shall be appointed for a minimum of 1 year.
 - (1) SctyBn.
 - (2) HqSvcBn.
 - (3) AC/S, G-3.
 - (4) AC/S, G-4.
 - (5) AC/S, G-5.
 - (6) AC/S, G-6.
 - (7) Marine Corps Community Services.
 - (8) MCAF.
 - (9) Training and Education Command.
 - (10) TBS.
 - (11) OCS.
 - (12) WTBn.
- e. The Director, Safety Division, or representative, will act as technical advisor and consultant to Committee Chairpersons when requested.

5. Shop/Work Section Safety Committees

a. Organizations or units having a population of over 500 military and civilian personnel, and organizations identified in

local union and the activity/command. Branch heads are responsible for ensuring safety issues surfacing are resolved within the organization, or, through the unit supervisor safety committee.

- b. The purpose of these committees is to increase interest at the worker level, decrease the existence of hazards and elicit suggestions for corrective action, and to raise safety/health awareness and concerns to the attention of higher management when resolution at the shop/section level is not practicable. Only issues that have already been addressed directly with the immediate supervisor, or at the shop/section safety training meetings should be entertained at committee meetings. Supervisors/Officers-in-Charge of shops/units not included in the above list are encouraged, at their own discretion, to establish shop/section safety committees to function as outlined in this section.
- c. Meetings will be held at least monthly. Minutes will be recorded at each meeting, normally typed within 5 working days, reviewed by the chairperson, and forwarded to the unit supervisor safety committee. Copies of the minutes will be distributed to each member and shall be posted for 1 month in a conspicuous place accessible to all shop/unit members.
- 6. Shop/Section Safety Training Meetings. Supervisors, officers-in-charge, staff noncommissioned officers-in-charge, and noncommissioned officers-in-charge will have weekly safety training meetings. These meetings need not exceed 10 minutes in length but should consist of meaningful safety/health material. Shops/units that are strictly office spaces with clerical duties only are exempt from the weekly requirement, but shall conduct monthly safety training sessions.
- a. These meetings are intended to provide a means of disseminating mishap prevention material and information to all personnel, should be used as a platform for solving local safety problems, and should provide training in specific safety related areas. The meetings shall be documented with an attendance roster that clearly indicates the specific safety topic discussed at the meeting.
- b. Safety problems that cannot be solved at this level will be referred to the shop/section safety committee, or the Base Safety Council, if there is no shop/section safety committee.

1003. POSTING OF SAFETY PRECAUTIONS

- 1. Posting is the display of any plate, placard, painted sign, written material, or instructions in a conspicuous place. Posted safety materials will not be removed, defaced, or covered.
- 2. Safety precautions will be posted by the supervisor in a conspicuous place on or near any equipment, component of equipment, or material which presents a hazard to the safety of personnel. For example, those safety precautions necessary for the safe handling, storage, and security of dangerous materials such as flammables, explosives, acids, corrosives, etc., will be posted at or near the storage space designated for those materials.

CHAPTER 2 OCCUPATIONAL SAFETY & HEALTH

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CHAPTER 2

OCCUPATIONAL SAFETY & HEALTH

- 2000. <u>PURPOSE</u>. To prescribe policy and guidance for on-the-job safety and safety procedures to be followed aboard Marine Corps Base, Quantico (MCBQ).
- 2001. <u>WINTER WEATHER</u>. Commanders, activity heads, supervisors, and building coordinators must ensure walkways are free of ice and snow to allow safe egress for all personnel. Outdoor maintenance areas will be cleared of ice and snow to allow access to these areas. Sidewalks and parking lots will be cleared of ice and snow as soon as possible. It is recommended that major activities establish a snow watch for whenever snow or ice is predicted to fall during the night. This rotating watch would be responsible for clearing common walkways during and after significant snow or ice.

2002. CONTROL OF LITHIUM BATTERIES

- 1. The conduct of the Lithium Battery Safety Program will be per reference (d), chapter 17.
- 2. Lithium Sulfur Dioxide Batteries. During the past decade battery manufacturers have developed electrochemical cells using lithium metal anodes coupled with either thionyl chloride, sulphur dioxide, carbon monofluoride, or other cathode materials. The different electro-chemistries and hardware designs used in the various cells results in different performance and safety characteristics. Lithium cells have a high internal resistance which may limit use to low rate applications. Potential hazards may exist due to misuse of cells, the use of cells of poor design and quality, venting of toxic gases, explosions, and fires.
- a. Caution must be used when handling lithium batteries. Due to potential hazards and environmental concerns, lithium batteries will be used only when mission accomplishment requires.
- b. The construction and placement of lithium battery storage facilities shall be approved by Safety Division, Fire Department, and Natural Resources Environmental Affairs Branch (NREA), G-5.

3. Branch Head Responsibilities

- a. Procure and use lithium batteries only for approved purposes.
 - b. Ensure lithium batteries are stored as follows:
- (1) Lithium batteries will be stored in their original containers in a cool and well-ventilated shelter. The Fire Department and Safety Division will be contacted if temperatures exceed 130°F.
- (2) The storage area will be isolated from other hazardous and combustible materials and used only for the storage of unused lithium batteries.
- (3) The quantity of batteries stored in an area will be kept to the minimum consistent with requirements.
- (4) In the event of an accident or battery malfunction, the Fire Department, Security Battalion, NREA, and Safety Division will be immediately notified.
- c. The AC/S, G-5 will assume overall responsibility for the proper disposal of used batteries.
- 2003. LEAD AND OTHER BATTERIES. Lead and other batteries will be stored, used, charged, and maintained in compliance with reference (g) and (m).
- 2004. <u>NEW CONSTRUCTION</u>. All new construction, renovation, and demolition projects will be reviewed by Safety Division, Industrial Hygiene (IH), Fire Department, and NREA prior to work commencing. No alterations to buildings or self-help projects will be completed without prior approval of the Facilities Maintenance Officer, Public Works Officer (PWO), Safety Division, IH, Fire Department, and NREA.
- 2005. <u>SERVICE CONTRACTS</u>. As appropriate, the Director, Regional Contracting Office Northeast, the PWO, and any other contracting office aboard MCBQ, will ensure that service contracts or contracts greater than \$2500 which fall under reference (n) are reviewed by Safety Division prior to award.
- 2006. PURCHASING PROCEDURES. Activities responsible for

purchasing equipment, material, or other supplies shall ensure that safety and health requirements are considered in the specifications.

- 2007. CONSTRUCTION SAFETY. Oversight authority for all construction projects rests with the PWO. The Facilities Engineering and Acquisition Department (FEAD) will enforce all safety and occupational health rules and regulations. The FEAD shall be contacted whenever unsafe or unhealthful conditions or acts are observed on contractor work sites. Safety Division will provide technical assistance to the FEAD, upon request.
- 2008. ORDERS AND STANDING OPERATING PROCEDURES. MCBQ orders and SOPs, or similar directives, that are issued to direct the manner in which work is performed, shall include appropriate safety and occupational health (SOH) requirements. All MCBQ bulletins, orders and SOPs shall be coordinated with the Safety Division. SOPs shall be updated at least annually.
- 2009. <u>COLOR CODES FOR HAZARDOUS MARKINGS</u>. Color is an effective way to alert personnel to hazards and to direct attention toward maintaining a safe environment. Prior to painting, activities will consult reference (g) for color-coding requirements.
- 2010. <u>SANITATION</u>. Sanitation is the continuing act of effecting and maintaining a safe and healthful working environment. All personnel will be responsible for maintaining sanitary and healthy conditions in working, eating, drinking, sleeping, and recreation areas by removing food containers, napkins, lunch bags, cans, bottles, paper cups, and food waste to the receptacles provided for such waste.
- 2011. SAFE HOUSEKEEPING PRACTICES. Supervisory personnel will ensure safe housekeeping at all times. To obtain safe housekeeping conditions the following practices will be followed:
- 1. Provide adequate storage space for material and equipment.
- 2. Cabinets and/or holders for tools and portable equipment will be designated and utilized.

- 3. Appropriate containers for flammable/hazard materials will be provided by each command/unit and utilized.
- 4. A clean place for workers to change and wash as needed will be provided as required.
- 5. Daily or immediate disposal of hazardous waste, unused materials, and refuse is to be conducted per MCBOs and unit SOPs.
- 6. Aisles and passageways are clearly defined, properly marked, kept clear, and in good repair, with no obstructions which could create a hazard. Compliance with reference (o) and (g) is required.
- 7. Tools are maintained in good condition and are properly stored when not in use.
- 8. Hazardous materials are stored per existing instructions and this manual.
- 9. Overhead storage areas are load tested and have proper load limits posted. These limits are not to be exceeded.
- 10. Overhead storage areas with access stairways and elevated open areas, will be equipped with all required handrails, intermediate rails, and toe boards.
- 11. All illumination fixtures are operational, correctly guarded, and cleaned regularly.
- 12. Oil, grease, coffee, water, or other spills on floors or walking surfaces will be wiped up or cleaned with approved materials immediately to prevent slips and falls.
- 13. Nonbuffing floor wax will never be applied over buffable floor wax (or the reverse). Such application reduces the coefficient of friction increasing the possibility of slips and falls. At no other time will any other type of wax, such as car wax, be used on floors. Manufacturers' instructions will always be followed. Wet floor warning signs will be used when maintenance and cleaning is being performed.

2012. EMERGENCY EYEWASH/SHOWER

1. Permanent, plumbed, emergency eyewash/shower facilities meeting

the requirements of reference (p) will be provided in all areas where workers may be exposed to irritating or damaging materials.

- 2. Plumbed units will be flushed weekly for at least 3 minutes. Temperature of flushing fluid shall be tepid.
- 3. Self-contained units shall be drained and filled per the manufacturer's instructions. In lieu of said instructions, the units shall be drained, flushed, and refilled weekly using potable water.
- 4. A record will be kept for each emergency eyewash/shower unit indicating the date and initials of the person flushing the unit. The USR will conduct monthly inspections of each unit to ensure units are in proper operating condition and will include checking the records to ensure flushing is conducted as required.
- 5. For further information on this process, contact Safety Division at 703-784-2866.

CHAPTER 3 REPORTING UNSAFE AND UNHEALTHY WORKING CONDITIONS

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CHAPTER 3

REPORTING UNSAFE AND UNHEALTHY WORKING CONDITIONS

- 3000. <u>PURPOSE</u>. To publish instructions, guidelines, and appeal procedures for processing personnel reports of unsafe or unhealthy working conditions and to encourage worker participation in identification and prompt reporting of unsafe and unhealthy working conditions.
- 3001. <u>BACKGROUND</u>. References (d), (j), (j), and (q) establish policy guidelines and implementation instructions for the submission, evaluation, and appeal procedures for reporting and documenting unsafe/unhealthy working conditions by Department of Defense and Marine Corps personnel.

3002. INFORMATION

1. Reporting

- a. Any worker, or representative of such worker, who observes an unsafe or unhealthful working practice or condition, or a violation of a safety or health standard, should either orally advise the workplace supervisor of the condition or make written notification of the condition or practice. Copies of written notifications will be sent to installation safety and health officials and should state in reasonable detail the reasons for the report.
- b. In lieu of orally reporting a deficiency to their supervisors, workers desiring anonymity may file a written report with the supervisor's name and refer the matter to Safety Division. All military and civilian workers are encouraged to resolve unsafe conditions or practices with their immediate supervisor/chain of command before taking further actions.
- c. Upon receipt of a report, the designated safety and health official will verify the reported condition and will notify the workplace supervisor who shall initiate appropriate corrective action. Inspections and investigations, as appropriate, shall then be conducted by the Safety Division personnel to determine if a hazard or unsafe practice exists.

- d. Within 5 working days after notification, the workplace supervisor shall advise the Safety Division, in writing, via the cognizant department head (or equivalent) of what corrective action has been taken on all written complaints/concerns.
- e. The originator of the report shall be notified in writing within 10 working days of actions taken regarding the reported condition. This notification shall be signed by the Director, Safety Division. If the 10-workday suspense cannot be met for any reason, an interim reply, signed by the Director, Safety Division shall be made to the originator of the report.
- f. If the safety officer determines that the reported condition is not unsafe or unhealthful, the originator of the report shall be advised within 10 working days by letter. This notification shall be signed by the Director, Safety Division, and will contain the rationale for the determination.
- g. When a worker reasonably believes they are exposed to a safety or health hazard that presents an imminent danger (a condition or practice posing a danger that could reasonably be expected to cause death or severe physical harm immediately or before the imminence of such danger can be eliminated through normal procedures), the worker will cease the activity and notify their supervisor. The supervisor will evaluate the situation, consult the Safety Division if necessary, and make a decision as to whether work may proceed. If the worker is not satisfied that the imminent danger is sufficiently eliminated, they will notify the supervisor. The supervisor will immediately notify the Safety Division, and assign the worker to other duties, if appropriate. Thereafter, if the Director, Safety Division determines that imminent danger does not exist or has been corrected, the worker will return to work.

2. Appeals

- a. If the originator of a report is dissatisfied with the determination made by the Safety Division, that person shall be encouraged to confer with the head of the safety office to discuss the matter further and attempt a resolution at the local level by appealing to the installation Commander.
- b. If dissatisfaction still exists, further appeals are authorized per reference (d).
- 3. <u>Retention of Records</u>. The Safety Division is designated as the office of record for appeals filed per reference (d) and this

- manual. Copies of reports and records of action will be retained for 5 years following the end of the fiscal year in which they occur.
- 4. <u>Safety Committee</u>. To minimize the need for filing written reports/appeals, civilian workers are encouraged to utilize the oral forum of the shop/worker safety committee to solve safety problems of a local nature. Failing resolution at this level, the problem may be elevated to a unit-level safety committee or the Safety Division.

3003. RESPONSIBILITIES. Supervisors will:

- 1. Adhere to the contents of this chapter.
- 2. Immediately date and time stamp the report to establish the date of receipt and expedite investigation and transmittal of responses to the Safety Division or Safety Division, Headquarters, Marine Corps.
- 3. Make workers aware of this procedure.
- 4. Ensure that their actions in response to this chapter do not interfere with established grievance procedures.
- 5. Refrain from interfering with this hazard reporting process and from discriminating against workers who use the process.
- 6. At no time will a supervisor threaten or coerce a worker in any way from reporting unsafe and unhealthy working conditions to the Safety Division. Supervisors found conducting this practice will face disciplinary action up to and including dismissal from Federal Service.

		DATE
From: To:	(Cognizant Authority)	
Subj:	WORKER REPORT OF UNSAFE/UNHEALTHY WORKING CONDITIONS MARINE CORPS BASE, QUANTICO	AT
Ref:	(a) MCBO P5100.1C	
worker	e undersigned (check one)worker, repress s believes that a violation of an occupational safety rd exists which is a hazard to workers.	sentative of and health
_	ecify the particular building or worksite where the alion is located:	lleged
a.	Building number:	
b.	Number of personnel exposed:	
c.	Responsible supervisor's/OICs/name and telephone nur	mber:
	Has this hazard been reported to the responsible isor/officer-in-charge as required in paragraph 3002.3	la of the
	Yes No	
	iefly describe the hazard (if additional space is need eparate sheet of paper):	ded, continue
4. Ple	ease indicate your desire: My name may be rev	vealed
a.	Worker's Signature:	
b.	Worker's Printed Name:	
c.	Worker's Work Location:	
d.	Worker's Work Telephone:	
e	Date of Report:	

Figure 3-1.--Worker Report of Unsafe/Unhealthful Working Conditions at Marine Corps Base, Quantico.

5.	Ιf	you	are	а	representative	of	workers,	please	state	the	name	of	the
orga	ani:	zatio	on: _										

Signature

Copy to:
Workplace supervisor/OIC
Safety Division (B 51)

Figure 3-1.--Worker Report of Unsafe/Unhealthful Working Conditions at Marine Corps Base, Quantico--Continued.

CHAPTER 4 WORKPLACE INSPECTIONS AND HAZARD ABATEMENT PROGRAM

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CHAPTER 4

WORKPLACE INSPECTIONS AND HAZARD ABATEMENT PROGRAM

- 4000. <u>DISCUSSION</u>. Significant costs accrue every year due to injuries, illnesses, and property damage resulting from workplace hazards. Inspections of all workplaces are conducted by Safety Division, Naval Health Clinic (NHCL), and Fire Department to identify facilities, equipment, and operations that are hazardous or do not comply with applicable standards.
- 4001. SAFETY INSPECTIONS. Annual, High Hazard, and Spot Inspections are conducted by qualified Safety Specialist per reference (a), (c), (d), (e), (g), (h), (r), and (s). An Annual and High Hazard Inspection Schedule will be published prior to each fiscal year and will be made available to each activity that will be inspected during the upcoming fiscal year. Annual Safety Inspections include a management evaluation of the activity's safety program and all facilities and operations. Designated high hazard areas will be inspected more frequently, at least semiannually, based upon an assessment of the potential for mishaps, occupational illnesses or damage to Marine Corps/Navy property. Unannounced or Spot Inspections will be conducted when, in the judgment of the Safety Division, they will provide a more accurate assessment of operating conditions and practices.
- 1. Inspections will be conducted in a manner to preclude unreasonable disruption of workplace operations. Annual and High Hazard Inspections will be conducted with prior written notice. An in-brief and out-brief will be offered to the unit commander/activity head.
- 2. A supervisor/officer-in-charge or Unit Safety Representative of the activity being inspected should accompany the inspector. Union representation will be per applicable Marine Corps orders, Federal law, and appropriate negotiated agreements. Safety inspectors are authorized to deny the right of accompaniment to any person whose participation interferes with a fair and orderly inspection.
- 3. Imminent danger situations discovered during an inspection will be immediately brought to the attention of supervisory personnel. Affected work will be stopped and personnel, not required for abating the hazard, will be removed from the affected area. Temporary abatement action will be initiated or the operation will

be terminated. Imminent danger is defined as a hazard or unsafe act that, in all probability, will cause death or serious physical harm immediately, or within a short period of time.

4. Written reports of workplace inspections will normally be provided to the commander/division/department head within 10 days. Responses to inspection reports will be returned within 30 days of the date of the report, or as indicated in the report, signed by the commander/division/department head. MCBQ Form 1700/2 (EF) (figure 1-1) will be issued for hazards assigned a Risk Assessment Code (RAC) 1, 2 or 3 with appropriate interim controls to be followed until permanent corrections are made. The notice shall be posted in the immediate vicinity of the hazard and remain posted until the hazardous condition has been abated or for 30 days, whichever is later, per reference (d). Status reports, signed by the commander/activity head will be provided every 90 days, thereafter, until the deficiency(s) has/have been corrected. work requests to correct hazardous conditions shall have the risk assessment code, as assigned by the Safety Division in the inspection report, affixed to them prior to submission to G-5.

4002. HAZARD ABATEMENT

- 1. Hazardous conditions shall be recorded in the Marine Corps Base, Quantico Hazard Abatement Log (HAL). The NHCL and Fire Department will forward a listing the first of each month of all their open RAC 1, 2, 3, 4, and 5 hazardous conditions to Safety Division for inclusion in the HAL. HAL will be updated with the receipt of each inspection report response and quarterly update. HAL will be available for review by recognized worker organizations.
- 2. The backlog of hazardous conditions will usually exceed the funds locally available for safety and health projects. Working with all members of the MCBQ staff, Safety Division will identify projects eligible for special Headquarters, Marine Corps Occupational Safety and Health funding throughout the year. Activities are encouraged to contact Safety Division with projects they consider to be possible candidates. Specific projects will be prepared by Assistant Chief of Staff, G-5.

CHAPTER 5

MISHAP INVESTIGATION AND REPORTING

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CHAPTER 5

MISHAP INVESTIGATION AND REPORTING

5000. MISHAP REPORTING

- 1. Reference (a) is the primary source for mishap investigation and reporting in the Marine Corps.
- 2. Timely investigating and reporting of mishaps and near misses is critical to preserving our force and providing a successful safety program. Proper investigation supplies the important information as to WHY the mishap occurred. Without finding the reasons (causes) why a mishap or near miss happened, it means there's the potential that the hazard or act still remains and that the mishap will occur again. Proper reporting ensures that the information gained will be passed on to those who are in a position to eliminate the hazard or change policies.
- 3. Safety Division is responsible for the collection and statistical reporting of all mishaps and near misses that occur aboard Marine Corps Base, Quantico (MCBQ). As such, the Safety Division must be promptly notified of all mishaps and near misses, whether the injured personnel or damaged equipment is attached to a MCBQ organization or a tenant organization. Safety Division is responsible for tracking and reporting all mishaps to Headquarters, Marine Corps (HQMC) and is the central clearing point for mishap information. The extent of the reporting requirements for tenant organizations is determined by the interservice support agreement between MCBQ and the tenant organization. Commanders/Activity heads are responsible for timely mishap notifications, investigations, and reporting. Safety Division personnel will assist as requested.
- 4. All mishaps will be investigated by the supervisor/noncommissioned officer/officer-in-charge of the injured personnel or damaged equipment. The MCBQ Form 5100/1, Supervisor's Mishap and Injury Report, CA-1, LS-202, and Web Enabled Safety System (WESS) Worksheet are the primary tools to "report" mishaps to the Unit Safety Officer (USO) or Unit Safety Representative (USR), or to the commander/activity head. The Supervisor will complete the appropriate form for all mishaps and forward to the USR or USO to be recorded in the WESS on-line reporting retrieval system at http://safetycenter.navy.mil/wess.

- a. The following information applies to completing the WESS on-line retrieval:
- (1) Military personnel involved in a mishap are accounted for and tracked for reporting purposes, ON or OFF duty, ON or OFF MCBQ. This includes Reserve personnel on active duty.
- (2) Civilian appropriated fund and non-appropriated fund employees are accounted for and tracked only during working hours, approved over-time, or if they are on orders.
- b. It is important that the chain of command be informed and kept up-to-date on the status of mishaps, investigations, injuries and trends within their command/organization.
 - c. Primary tools/forms are:
- (1) Form MCBQ 5100/1 (figure 1-1) is available on the forms server.
- (2) CA-1 Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation (figure 1-2) is available on http://www.dol.gov/esa/regs/compliance/owcp/forms.htm
- (3) Employer's First Report of Injury or Occupational Illness (Form LS-202) is available on http://www.dol.gov/esa/owcp/dlhwc/ls-202.pdf#search=%22form%20ls-202%22
- (4) WESS Worksheet is available on http://safetycenter.navy.mil/wess.
- d. Safety Division will act as quality control to ensure a complete investigation is reported.
- 5. Reports to be submitted to the Head, Human Resources & Organizational Management-Quantico Office (HROM) are as follows:
- a. The Federal Employees' Compensation Act (FECA) prescribes the use of specific reports and forms whenever an appropriated fund civilian worker of the Federal Government is injured while on duty or suffers an occupational illness or disease. Reference (d) and and (t) outline specific guidance and instructions in this regard and will be used in preparation of required reports.
- b. Workers, supervisors, and officers-in-charge are responsible for adhering

to the reporting and processing procedures of the FECA when civilian workers suffer any duty connected injury or illness. The Head, HROM-Q should be consulted for information and assistance in this regard.

- 6. Serious Mishaps, as defined in reference (a), shall be reported to Safety Division by phone, followed up by an email to the Director, Safety Division, as soon as possible. A serious mishap is one that involves any of the following:
 - a. A fatality.
 - b. Hospitalization of three or more from one incident.
- c. Lost time injury or property damage as a result of explosives or chemical munitions.
 - d. \$200,000 or more of property damage.
- e. An injury involving a permanent total or permanent partial disability to Marine Corps personnel.
 - NOTE: Serious mishaps require special investigations and reporting requirements to HQMC. Units are required to submit a Serious Mishap Report (SMR) within 8 hours of the incident. However, if a Personnel Casualty Report (PCR) or an OPREP-3 message is sent, this can fulfill the requirement of the SMR as long as Safety Division, Headquarters, Marine Corps (CMC (SD)) is added to these messages as an info addressee. As with ALL mishap related messages, Safety Division must be an informational addressee.
- 7. Report motor vehicle accidents using SF 91 per the following:
- a. The driver of a government motor vehicle (GMV) will complete a SF 91 report for any mishap involving a government motor vehicle.
- b. A copy of all completed SF 91 will be sent by the GMV operations supervisor to the Safety Division.
- 8. Provost Marshal Office (PMO) Daily Blotters relating to fire, industrial/occupational, recreational, government operated vehicle, and privately owned vehicle accidents resulting in injury, death, or property damage, and PMO Formal Accident Investigation Reports

shall be forwarded by the PMO Operations Officer or Accident Investigation Unit to the Safety Division each working day.

9. Coordination With Workers Compensation

- a. Civilian Employees, appropriated and non-appropriated, who are injured on the job are required to notify their respective HROM for claims for Worker Compensation. Appropriated fund employees are covered under the FECA, while non-appropriated fund employees are covered by a separate insurance program.
- b. Supervisors are to assist the employees in reporting injuries and claims to the personnel offices. Within 2 working days of any civilian employee mishap, the injured employee's leader or supervisor, and first line supervisor, will brief the Commander or Chief of Staff, MCBQ of circumstances of the mishap and what has been done to prevent similar mishaps from occurring in their work area.
- c. Copies of all CA and LS forms will be forwarded to the Human Resource Office and Safety Division. The HROM for all appropriated fund (AF) and non-appropriated fund (NAF) employees, upon receipt of either the CA-1 or LS-202 form, will inform Safety Division of the injured employee's name and first line supervisor.
- d. The Safety Division will confirm the mishap and conduct a mishap inquiry, answering the who, what, when, why and how questions of the mishap.
- e. Due to the similar nature of much of the data, there will be close coordination between Safety Division and the Compensation Claims monitors in the HROM-Q. The Safety Division Mishap Database and the Compensation Claims Database will be reconciled on a regular basis. This is performed in order to pick up injured personnel that may not have been reported accurately to either Safety Division or HROM-Q. Also, the combined information gives a greater accuracy in finding out the actual costs, immediate and long-term, associated with mishaps.

Figure 5-1.--Supervisor's Mishap and Injury Report (MCBQ 5100/1).

Figure 5-1.--Supervisor's Mishap and Injury Report (MCBQ 5100/1)--Continued.

Figure 5-2.--Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation (Form CA-1)

CHAPTER 6 PERSONAL PROTECTIVE EQUIPMENT (PPE)

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CHAPTER 6

PERSONAL PROTECTIVE EQUIPMENT (PPE)

6000. <u>PURPOSE</u>. To promulgate policy and procedures for procurement, issue, and wearing of PPE in designated areas and operations by military and civilian personnel aboard Marine Corps Base, Quantico (MCBQ) per applicable PPE directives.

6001. POLICY

- 1. All personnel working in designated areas and operations will be provided appropriate PPE at government expense.
- 2. Designation of appropriate areas and operations will be made by the supervisor-in-charge, Safety Division, Occupational Health (OH) Branch and Industrial Hygienist (IH), Naval Health Clinic (NHCL) based on mishap records, local conditions, and current directives. Each unit should review the latest IH survey for their command.
- 3. All areas and operations designated as eye, foot, head, and noise hazardous shall be posted with an appropriate warning sign(s) as determine by Safety Division and/or the IH.
- 4. Per reference (d), chapter 13, paragraph 13000.4, managers will ensure compliance with the prescribed use of PPE and document cases of noncompliance. Managers should consider disciplinary action as a corrective measure against the offender and supervisor, as necessary.
- 6002. PERSONAL PROTECTIVE EQUIPMENT (PPE) SPECIFICATIONS AND REQUIREMENTS. Federal agencies and standards organizations have developed standards and specifications for the design and use of PPE and devices. Organizations shall only use those items that have been approved by:
- 1. Federal specifications.
- 2. American National Standards Institute specifications.
- 3. Recognized approval authority, such as Underwriter's Laboratories, Factory Mutual, or American Society of Testing and Materials.

- 6003. TRAINING. Supervisors are responsible for providing, and documenting, training in the use, care, and limitations of PPE that is required to be worn in designated areas and operations. An audit of training records will be conducted annually by safety specialist(s) to ensure compliance with reference (d), paragraph 13003.
- 6004. <u>RESPIRATORY PROTECTION</u>. See reference (u) for Respiratory Protection Program requirements.
- 6005. EYE PROTECTION (SIGHT CONSERVATION PROGRAM). The Sight Conservation Program will be conducted per reference (d), section 13007. Protective eyewear will be worn in all eye hazard areas where there is a possibility of eye injury from dust, abrasives, splashing chemicals, acids, bright flashes, or surges of light, i.e., welding flash. Areas designated as eye hazards will be posted with appropriate warning signs per reference (g) and (h). Permanent, plumbed, emergency eyewash facilities meeting the requirements of reference (p) will be provided in all areas where workers may be exposed to irritating or damaging materials. The following are some of the common types of protective eyewear:
- 1. Plano Safety Spectacles. These conventional-type spectacles, with or without side shields, and with clear hardened non-corrective lenses, are the general-purpose type. They will be worn when operating lathes, sharpeners, planers, drill presses, power saws, grinders, buffers, polishers, mowers, etc. They do not provide adequate protection in operations such as welding, burning, chipping, riveting, or working with lasers. Safety glasses without permanent side shields are NOT allowed.
- 2. <u>Safety Spectacle Goggles, Type A</u>. These goggles, with side shields and hardened filtered lenses, are for the protection of welders and their helpers and those working in the vicinity of welding operations. They protect against glare, flash burns, and flying particles.
- 3. Eyecup Goggles. These cup-type goggles with permanent side shields and hardened clear lenses, sometimes called "chippers' goggles," are for use in occupations where large and heavy particles or flying objects with considerable velocity could injure the eye. These goggles are worn during riveting, chipping, heavy grinding, caulking, and pile driving operations.

- 4. <u>Face Shields</u>. Face shields may be required, in addition to safety glasses or goggles, for operations that generate flying particles or objects (e.g., concrete chips, wood knots, splinters or chemical splashes). Face shields do not meet eye protection requirements and cannot be used as a substitute for safety eyewear.
- 5. <u>Cover-Type Goggles</u>. These goggles, with hardened lenses, are designed to wear over prescription or other glasses, similar to protection provided in eyecup goggles.
- 6. <u>Specialty Eyewear</u>. There are other work situations which require special types of eye protection, i.e., laser eyewear. Guidance for laser eye protection is provided in reference (x). Supervisors will provide specialty eyewear as required.
- 7. Corrective (Prescription) Safety Spectacle. These glasses are used when a worker, who already wears corrective lenses, works in an eye hazard occupation or area. (NOTE: Special spectacle mounting frames are available for purchase by the organization for workers who are required to wear a self-contained breathing apparatus.)
- a. Military personnel will submit requests through their approved source of supply with prior approval from the organizational safety officer.
- b. The following apply to Civil Service personnel desiring corrective safety glasses:
- (1) The employee completes MCBQ Form 5100/3 (EF), Safety Eyewear Request, for approval and signature by the immediate supervisor. When requesting prescription safety glasses, employees must present a current prescription, handwritten, that reflects the doctor's name, address, phone number, and signature. The prescription shall contain any special requirements for the prescription such as whether the employee requires bifocal or progressive lenses. Safety glasses from the previous prescription will be surrender to the Safety Division program coordinator upon the arrival and receipt of the new safety eyewear.
- (2) Supervisor will determine the need and forward approved MCBQ Form 5100/3 (EF) to Safety Division for coordination.
- (3) Safety Division will pass name and social security number (last 4 digits) to the OH nurse for appointment

scheduling. The OH nurse will notify Safety Division program coordinator of the appointment date and time, who will then notify the employee's supervisor. It is the supervisor's responsibility to ensure the employee keeps the appointment.

- (4) Report with approved request to OH nurse at NHCL for vision screening.
- (5) After screening, go directly to Optometry Department for refraction, if required.
- (6) Immediately following the Optometry appointment, the worker returns all paper work to the Safety Division, where the glasses are ordered.
- (7) The Safety Division will notify the worker when eyewear is received from the contractor.
- c. Civil Service personnel requesting replacement prescription safety eyewear due to damage shall submit MCBQ Form 5100/3 (EF) and surrender the damaged eyewear. Disciplinary actions should be taken by the immediate supervisor for any prescription safety eyewear damaged due to the employee removing permanent side shields or other prohibited modifications.
- d. Nonappropriated fund workers and tenant activity workers will submit through their normal source of supply with prior approval from their organizational safety officer.

8. Emergency Eyewash Facilities

- a. Emergency eyewash facilities shall be provided in all areas where corrosive chemicals are used or stored. All such emergency facilities shall be located where they are easily accessible to those in need, and shall be installed, maintained, flushed and inspected per the manufacturer's recommendations and reference (p). Plumbed eyewash stations shall be checked and flushed weekly. Portable eyewash stations shall be drained and flushed quarterly, or per the manufacturer's directions if an antibacterial agent is used.
- b. Plumbed eyewashes are preferred and shall be installed where feasible. Refer to reference (d), chapter 13 for additional information.

6006. HEARING PROTECTION

- 1. Hearing protection will be conducted per reference (d), section 13005.
- 2. The NMCL will:
 - a. Perform medical surveillance audiometry.
 - b. Fit individuals with properly sized ear plugs.
- c. Provide hearing conservation training to personnel enrolled in the Hearing Conservation Program during an individual's annual audiometric examination.
- 3. Supervisor's are responsible for enrolling personnel, assigned to designated hazardous noise areas, in the Hearing Conservation Program.
- 6007. <u>FOOT PROTECTION</u>. Safety footwear is worn to provide protection for the toes from impact and compression forces. All safety footwear issued aboard MCBQ will meet reference (y) and shall be stamped by the manufacturer as meeting reference (y).
- 1. Personnel assigned duties in designated foot hazard areas will be issued safety footwear, and replacement, at government expense. An employee will not be reimbursed for safety footwear bought at their expense unless prior approval is granted by the activity. Toe guards may be issued in cases where foot protection is necessary on an infrequent or temporary basis.
- 2. After the supervisor has validated that replacement shoes are required, the employee will have the following options:
- a. Purchase the safety shoes of his/her choice and seeking reimbursement for the shoes from their unit.
- b. Having the shop planner, or other employees designated by management, purchase the safety shoes that have been selected by the employee, using a Government-wide Purchase Credit Card, from providers designated by the agency such as but not limited to, Bates and Redwing. The shoes selected by the employee will be reasonably priced and will be of a type and quality consistent with the work requirements of the employee.

6008. HEAD PROTECTION

- 1. Head protection, for the protection of personnel from the impact of falling and flying objects and from limited electric shock and burn, shall meet the specifications of reference (z).
- 2. Types of helmets are:
 - a. Full brimmed.
 - b. Brimless with beak.
 - c. Class A, Limited voltage resistance.
 - d. Class B, High voltage resistance.
 - e. Class C, No voltage resistance.
 - f. Class D, Protective for fire fighters.
- 3. At no time will a metallic hard hat be issued.
- 6009. <u>HAND PROTECTION</u>. Appropriate hand protection will be required whenever employee's hands are exposed to, or are likely to be exposed to, such hazards as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasion; punctures; chemical irritants; thermal burns; and harmful temperature extremes.
- 6010. <u>ELECTRICAL PROTECTIVE DEVICES</u>. Appropriate rubber protective equipment will be provided for electrical workers who perform work on energized or potentially energized electrical systems. Equipment will conform to the following:
- 1. Reference (aa), Specifications for Rubber Insulating Gloves.
- 2. Reference (bb), Specifications for Rubber Insulating Matting.
- 3. Reference (cc), Specifications for Rubber Insulating Blankets.
- 4. Reference (dd), Specifications for Rubber Insulating Covers.
- 5. Reference (ee), Specifications for Rubber Insulating Line Hose.
- 6. Reference (ff), Specifications for Rubber Insulating Sleeves.

- 6011. PROTECTIVE CLOTHING. Supervisors will ensure employees are adequately clothed to protect against temperature extremes.
- 6012. <u>FALL RESTRAINT/PROTECTION</u>. Supervisors will ensure personnel working at heights of more than 6 feet are provided with appropriate fall restraint/protection equipment and training.

CHAPTER 7 NON-OPERATIONAL AND RECREATION SAFETY PROGRAM

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CHAPTER 7

NON-OPERATIONAL AND RECREATION SAFETY PROGRAM

- 7000. <u>PURPOSE</u>. To establish policy and provide guidance for the Recreation and OFF-DUTY Safety Program. Program emphasis will be to enhance the safety and quality of life for all personnel.
- 7001. <u>BACKGROUND</u>. Reference (gg) and (hh), provides guidance and assigns the responsibility to Commandant of the Marine Corps for accident prevention and safety program development which includes sports, recreation, and home hazards.

7002. NON-OPERATIONAL AND RECREATION SAFETY PROGRAM MANAGEMENT

- 1. Responsibilities shall be shared by the Director, Marine Corps Community Services (MCCS) Division, Range Safety personnel, Safety Division representatives, commanders, and participants. Specific Marine Corps program guidance is found in reference (gg).
- 1. Recreational facilities and equipment will meet all Department of Defense, Depart of the Navy, Marine Corps, and nationally recognized safety standards.
- a. Plans and specifications for recreational, administrative, and maintenance facilities will be reviewed by appropriate Assistant Chief of Staff, G-5 personnel and the Safety Division prior to construction or renovation.
- b. The Safety Division shall review all major equipment acquisitions.
- 7003. <u>REQUIREMENTS</u>. An effective inspection program requires the cooperative efforts of the Safety Division, MCCS Facility managers, supervisors, and MCCS safety representatives. Daily inspections of MCCS facilities and equipment will be conducted by each MCCS Facility manager. Deficiencies that cannot be corrected will be reported to the MCCS Safety Specialist and the Director, MCCS Division. Quarterly inspections (during the seasonal use period) are required for swimming pools, beaches (if any areas become designated as such), marinas, automotive and woodworking (currently closed) hobby shops, and athletic fields. Quarterly inspections

shall be conducted, written, and maintained by a formally trained, competent MCCS Safety Specialist. The skeet/trap/shotgun range is part of a private club and will be inspected quarterly to ensure compliance with pertinent Marine Corps range directives. A summary of findings from the above activities will be maintained by the activity Unit Safety Representative. Annual inspections of sports and recreation facilities and equipment will be conducted by a formally trained competent MCCS Safety Specialist. Marine Corps orders will be cited and nationally recognized standards will be used.

1. <u>Indoor Facilities</u>. Requirements and recommendations specified below will be incorporated in the MCCS Safety Program.

a. Automotive Hobby Shop

- (1) Staff members will provide qualification training for patrons to safely operate power tools and equipment, hydraulic lifts, welding, and spray painting equipment. Qualifications will be recorded and maintained in the shop by MCCS management personnel. Qualification training will emphasize proper use of equipment, safety precautions, and proper use and care of personal protective equipment (PPE).
- (2) Patrons will be provided with appropriate PPE. Signs will be placed on or adjacent to each piece of equipment where PPE is required. PPE will be readily available, serviceable, and its use enforced by the shop supervisor and workers. Eye protection will be worn whenever working under vehicles. When using equipment, conducting operations, or working in a designated hazardous noise area, hearing protection use will be enforced.
- (3) Daily inspections of the auto hobby shop will be performed by the supervisor.
- (4) Shop floors will slope toward drains equipped with oil separators per local environmental guidelines. Drain hazardous liquids into suitable marked containers. Grease, oil, water, and other liquids spilled on the floor will be cleaned immediately to prevent slipping hazards. Use an absorbent material to pick up grease and oil spills. Dispose of used absorbent material in properly marked waste containers. Oily rags must be placed in a self-closing metal container labeled, "Oily Rags Only."
- (5) All welding areas will be approved by the Fire Chief, Fire Protection and Prevention Branch, Security Battalion. Only certified welders will be allowed to weld. Welding will not be

done on fuel tanks until removed from the vehicle, purged, and checked for vapors by a certified gas free engineer. Goggles, gloves, helmets, and shields that provide maximum eye protection shall be worn. During heavy work, flame-resistant material, such as gauntlet gloves, aprons, and leggings shall be worn. Additionally, safety shoes shall be worn when working with heavy objects. Cotton clothing shall not be worn. Woolen clothing is preferable. Sleeves and collars must be kept buttoned. Trouser cuffs shall be turned down. Ensure exhaust fans are working and have been certified within the last year.

- (6) Aisles and walkways will be kept clear of parts, tools, and equipment. Valve covers, broken fan belts, wrenches, and other tools laying around the work area are trip hazards.
- (7) Tools shall be free of cracks, worn parts, broken or rounded tips, chips, mushroomed or loose heads and broken handles. Extension cords and electric tools will not have broken plugs, frayed or taped insulation. Electric tools will have an intact ground wire prong or will be double-insulated. Tools will be used only for their designed purpose. Defective tools will be taken out of service and tagged. Compressed air hoses that are cracked, worn, or frayed shall be taken out of service and tagged.
- (8) Compressed air must be reduced below 30 pounds per square inch (psi) for cleaning dirt and dust from parts and the work area. Compressed air shall not be used to clean clothes or the body. Compressed air used for power air tools will not exceed 90 psi. Air must be shut off and all pressure in the line must be released before disconnecting the air hose from the airline.
- (9) Grinding wheels equipped with an adjustable work or tool rest will be kept with a 1/8-inch clearance between the wheel and rest; the tongue guard kept within 1/4-inch of the wheel. PPE will be worn at all times. **Side wheel grinding** is strictly prohibited unless the wheel is approved for such grinding.
- (10) Instructions for the operation of electric and hydraulic lifts will be posted in the vicinity of the lift. Patrons are required to review the instructions prior to operating the lift. The facility manager will ensure familiarity with the equipment by reviewing the operating features with each patron before use. Hydraulic jack teeth clamps will be kept clean and not worn. Jack stands must be used under a vehicle whenever a hydraulic jack is used. The weight limits posted on jacks shall not be exceeded. All jacks and other hoisting devices will be load

tested annually to meet the manufacturer's recommendations. This can be scheduled through the Facilities Maintenance Division. Written documentation of load testing will be noted on each jack or hoist.

- (11) Vehicle exhaust is a major source of carbon monoxide. A tailpipe exhaust system will be used when vehicles are running in the shop. At no time will work be permitted in the shop with the vehicle running and the tailpipe exhaust system not in operation.
- (12) There is very little exposure to asbestos in most body shops. Asbestos dust is usually associated with clutch and brake work. Dust must be vacuumed from the drums and floor with a special vacuum that has a high-efficiency particulate air (HEPA) filter. Dry sweeping, mopping, or cleaning with pressurized air is strictly prohibited. HEPA filter use will be enforced by the shop manager.
- (13) Solvents will be used in well-ventilated areas only. Appropriate PPE including goggles, gloves, and aprons will be worn.
- (14) Automotive body fillers activated by chemical hardeners can cause rashes and sores. If a patron's skin comes in contact with any hardener, wash it off immediately with soap and water. Use gloves and a long sleeve shirt to prevent exposure.
- (15) Electric power cables and cords will be constructed of heavy armored rubber or similar materials to prevent damage from oil and grease. Power cables and cords on all portable and fixed electrically operated equipment will be of three-wire construction and equipped with a ground prong (except double-insulated tools). Power cords will not be strung across shop floors. Portable lights used in the shop area will be equipped with handle, lamp-holder, hook, and a guard attached to the lamp-holder or handle.
- (16) Per reference (o), in each automotive repair shop, the area between the floor and a point 18 inches above the floor is considered a Class I, Division 2 explosive hazard (unless mechanical ventilation that creates four air changes per hour is present in the immediate area). Drink machines and refrigerators equipped with motors below this 18-inch limit will not be allowed in the bay areas unless equipped with explosion proof motors.
- (17) Transmission jacks shall be equipped with leveling devices to prevent transmissions from rolling or falling off.
 - (18) "No Smoking" signs shall be posted.

(19) Plumbed eye wash stations will be tested weekly. Portable units will be checked quarterly. Facility managers will keep written documentation of these inspections.

b. Spray Painting

- (1) The health hazards associated with spray painting operations require special precautions. Patrons will be apprised of these hazards and the safe working practices necessary to protect themselves. Patrons will also be supervised throughout the spray painting evolution. A recommended summary of spray painting hazards and safe operating procedures will be available by the Auto Shop staff.
- (2) Spray painting operations using compressed air spray guns or airless spray guns shall be conducted inside a paint booth. Local exhaust ventilation will be in operation at all times when paint materials are being used. Spray painting with aerosol spray cans should be conducted inside a paint booth.
- (3) Gloves shall be worn to prevent prolonged or repeated contact with paint materials. Most types of protective gloves can be used with water-based paint. Manufacturer's material safety data sheets shall be consulted for specific glove types to be used with other paint materials.
- (4) Splash-proof goggles will be worn at all times while using paint materials (mixing, brushing, rolling, or spraying). A full-length face shield may also be required when engaged in spraying operations.
- (5) A face shield in addition to eye goggles is required when pouring or mixing paint materials such as paint strippers or thinners.
- (6) The use of a coverall with sleeves rolled down is mandatory for spray-gun painting. Coveralls are not required for touch-up jobs.
- (7) A head covering is required when painting above waist level. In most instances, a utility cap is sufficient. The use of a hood is desirable when spray-gun painting.
- (8) A protective skin cream on exposed parts of the skin shall be used when using materials that contain sensitizers (e.g.,

vinyl, vinyl-alkyd, polyurethane, epoxy or alkyd paints). The use of a skin cream is recommended for spray-gun painting.

(9) Consolidate paint materials into the least number of containers and return them to the flammable liquid storage cabinet, paint locker or flammable storeroom at the end of the work shift. Keep paint containers closed.

c. Gymnasiums

- (1) Racquetball and basketball courts shall be free of obstructions on their surfaces, around their edges, and overhead. Court floors will have a smooth finish and be free of splinters and slippery substances. All lights shall be adequately shielded to protect them from breakage or damage. Portable and stationary bleachers shall be inspected every 2 years by Facilities Maintenance personnel. Daily inspections will be conducted by the facility staff.
- (2) Locker and shower rooms shall be kept neat, clean, and free of slip or trip hazards. Floor surfaces in, and immediately outside, shower rooms will be made of non-slip or abrasive material to permit good footing. Shower room light fixtures will be suitable for damp locations.
- (3) Weight rooms shall have safety procedures posted. Proper warm-up and operating instructions must be conspicuously posted. Minimum clearance may vary; however, a safe distance shall be maintained to ensure the safe operation of equipment as established by the manufacturer. Collars or clamps shall be used for free weights. A spotter or an automatic spotter is required for bench pressing. A weight belt is also recommended when lifting free weights. Free weights will be stored on racks when not in use.
- (4) It is recommended to maintain a minimum clearance of 3 feet from basketball sidelines and end lines, where physically possible. It is recommended that walls within 3 feet of end lines and sidelines be padded to a height of 6 feet. Floor mats should be provided at each basketball court entry point to allow players to clean their shoes prior to entering the court. All liquid spilled onto the court will be mopped up immediately.
- (5) Doors on racquetball and handball courts should open inward. Doorknobs and handles should be recessed on the inside of racquetball and handball court doors. The requirement to wear

approved racquetball eye protection will be conspicuously posted. Wearing of eye protection, while playing racquetball, shall be enforced by the MCCS staff. Personnel refusing to properly wear eye protection will not be allowed to continue to play. Racquetball eye protection shall be made of polycarbonate or similar material, have side protection and meet American Amateur Racquetball Association specifications. Racquetball rackets will be equipped with wrapped handles and wrist straps. Racquetball spectator areas shall be designated.

(6) Sauna construction shall meet or exceed industry standards and be approved by the Fire Chief, Fire Prevention Branch, Security Battalion, and the Director, Safety Division before installation. A thermostatic control device shall be installed which prevents the sauna from exceeding 200°F. temperature in steam rooms shall not exceed 120°F. Thermostatic control devices will only be accessible to MCCS staff. shall not be used for floor covering. A sign shall be conspicuously posted, listing rules for operations and use. Heaters shall be shielded to prevent burns. Saunas and steam rooms will be equipped with an alarm that activates in an emergency. Lighting fixtures will be suitable for damp locations. Temperature readings will be checked a minimum of twice daily by an MCCS Safety Prior to closing the facility for the night, representative. heaters will be turned off.

2. Outdoor Facilities

a. Camp Grounds and Picnic Areas

- (1) A well-drained, gently sloping area is preferred. Sites shall be free of rock outcrops and heavy undergrowth. Weeds shall be regularly cut to prevent coarse stubble from developing and to reduce insect, snake and small animal infestations. If a lake shore is considered, it shall be on solid beach, free of boggy areas and caving banks.
- (2) Campgrounds and picnic areas shall be provided with an adequate supply of safe drinking water. Water hydrant stations with non-threaded, self-closing faucets, properly drained to prevent standing water, shall be provided within 150 feet of the camp site and individual picnic area. In locations where a water system is not available, a potable water source shall be provided from a central pickup station. Non-potable water systems shall be adequately identified to prevent consumption. If temporary facilities are provided for pop-up trailers and recreational

vehicles, adequate potable water and sewage facilities shall be provided.

- (3) Durable, waterproof and rodent proof 32-gallon trash containers shall be provided near the access road and a maximum of 150 feet from any camping or picnic area. These containers shall be stationary to minimize being overturned by animals. They shall be equipped with lids and be maintained in a clean and odor-free condition at all times. The use of 55-gallon drums as containers shall be discouraged because when filled, their large size makes them difficult to empty and clean. Trash and garbage shall be removed daily. More frequent collections may be necessary. Ashes should be removed from grills and cleaned after each use with a coarse bristle wire brush. In areas where water under pressure is available, modern comfort stations shall be located within an approximate radius of 300 feet for campgrounds and 500 feet for picnic areas.
- (4) The use of chemical toilets in remote areas may be the only practical solution to sewage disposal. Frequent cleaning and maintenance should be required to avoid odors in comfort facilities. Safety awareness literature on poisonous snakes and insects should be made available for patrons.

b. Quantico Riding Club

- (1) Signs shall be posted indicating the location of emergency phones and fire extinguisher. "No Smoking" signs shall be posted.
- (2) Procedures for housekeeping shall be maintained. Noncombustible trash containers, for other than stall waste, shall be provided. Storage of hay or straw is prohibited in aisles.
- (3) Multiple-outlet extension cords are prohibited. Extension cords will be of one continuous length, which connects one appliance to fixed receptacles. The cord shall be listed for heavy service and properly sized for the intended application. Extension cords will be used only on a temporary basis. Extension cords shall not be supported by any metal objects (e.g., nails, screws, hooks, or pipes). Portable electrical heating and cooking appliances shall be of the type that automatically interrupts electrical current to the heating element when the appliance is not in its normal operating position (tip-over disconnect). Portable heating and cooking appliances shall be used only in designated spaces.

(4) The storage of flammable and combustible liquids, except for medicinal purposes, shall be prohibited in the barn. Fire hydrants shall be provided within 300 feet of the building. Fire extinguishers shall be provided no more than 75 feet of travel to reach one. The officer-in-charge should brief patrons on smoking regulations, fire emergency notification, location of fire extinguishers, and use of extension cords and appliances.

c. Marinas/Boat Rentals

- (1) Patrons renting MCCS boats shall be provided qualification training by MCCS staff members which includes basic rules, knowledge of personal flotation devices, applicable safety requirements and emergency procedures. Written qualifications will be evaluated and maintained by MCCS personnel. In addition to these minimum requirements, State of Virginia requirements for recreational boaters must be met. Courses are offered by state agencies, U.S. Coast Guard Auxiliary, U.S. Powerboat Squadrons, and the American Red Cross. Completion of such a course is evidence of qualification.
- (2) MCCS staff members will perform an in-depth preseasonal safety survey and abbreviated daily safety inspections of all MCCS watercraft and equipment. The MCCS Safety Specialist will document quarterly inspections. The MCCS Safety Specialist will conduct inspections of MCCS marina facilities.
- (3) U.S. Coast Guard approved personal flotation devices (PFD) shall be worn while operating the following MCCS watercraft: canoes, paddleboats, personal watercraft, rowboats, sailboats without fixed keels (e.g., sailboards, lasers, hobie cats, etc.) and motorboats less than 16 feet in length. PFDs shall be aboard and available for immediate use by operators and crew of all other MCCS watercraft. All boats, regardless of size, when used for training or if operated between the hours of sunset and sunrise (charter boats excluded) shall require the wearing of PFDs. Marina operators may set stricter requirements for use of PFDs based on evaluation of patron's qualifications, weather and water conditions. For boats 16 feet and longer, a Type IV throwable device will be provided. PFDs shall be free of rips, tears, and other unserviceable conditions.
- (4) Motorboats (except outboard and diesel) shall be equipped with a Coast Guard approved carburetor backfire flame arrestor. For boats with enclosed gasoline engines, a ventilation system is required. A Coast Guard or Underwriter's Laboratories

"marine-type" fire extinguisher will be provided on boats with enclosed or permanently installed gas tanks. A load-capacity plate with occupancy limits (weight, number of persons, and horsepower) shall be posted in each boat. Boats 16 feet and longer shall carry three daytime and three nighttime visual distress signals. For boats less than 16 feet in length, which are used between sunset and sunrise only, daytime signals are not required. The shelf-life date for pyrotechnic signals shall be current. Flares should be stored in ammo boxes while in the marina, if not provided with a suitable storage container. A fire symbol should also be indicated on the outside door.

- (5) Boats used between sunset and sunrise will be equipped with lights. All boats less than 39 feet in length must have a sound signaling device such as a horn or whistle. For boats over 39 feet, a bell as well as a whistle or horn shall be provided. Boaters should leave a float plan stating departure time, destination and time of return.
- (6) All walking surfaces on piers and docks shall be free of protruding nails, splinters, holes or loose boards and have a slip-free surface. Adequate lighting shall be provided on piers and docks. Handrails 42 inches in height with intermediate railings should be provided for main entrance walkways to docks and piers to prevent patrons from falling overboard. At least one U.S. Coast Guard approved throwable device, such as a life ring with 60 feet of 3/8-inch diameter rope should be available on each dock. On docks more than 200 feet in length, devices shall be located at distances no greater than 200 feet apart. Fire extinguishers for Class A, B, and C fires shall be installed at each end of a pier and bulkhead that exceeds 25 feet in length. Extinguishers will be so located that traveling distance to any unit will not exceed 75 feet.
- (7) The marina or boat yard operator shall post in a prominent location, or provide boat operators with, a list of safe operating procedures to include: the use of portable charcoal grills for cooking, trash disposal, no-smoking areas, location of fire extinguisher and hoses, instructions for turning in a fire alarm, and fueling instructions. Gasoline delivery nozzles shall be equipped with a self-closing control valve that will shut off the flow of fuel when the operator's hand is removed from the nozzle. An emergency fuel shut-off control switch shall be installed at least 20 feet, but not to exceed 100 feet from the gasoline dispenser. The control device shall be labeled and

readily accessible at all times of operation. An over-sized, high-hazard fire extinguisher shall be located on each side of the fuel dispensing area.

- (8) Electrical wiring located near boat ramps shall be installed underground to avoid possible contact with masts and other parts of boats. If electrical wiring is not installed underground, the wiring within yard areas shall be routed to avoid wiring within or across any point of the yard that may be used for moving boats. Avoid wiring closer than 20 feet from the outer edge or any portion of the yard that may be used for moving boats or stepping or unstepping masts. Clearance for wiring in other portions of the yard shall not be less than 18 feet above ground in open areas and not less than 8 feet above the highest point of roofs when above buildings. Warning signs to alert operators of wire clearance shall be visible.
- d. <u>Boating on the Impounded Waters of Marine Corps Base</u>, Quantico. Boating is permitted as follows:
 - (1) Electric motor or less on Breckinridge Reservoir.
 - (2) Electric motor or less on Dalton Pond.
- (3) Outboard motor of 10 horsepower or less on Lunga Reservoir.
 - (4) No mechanical power on R-6 Pond.
 - (5) No boats permitted on Barrett Pond.
- (6) Boating is not allowed between sunset and sunrise. However, privately owned and operated boats being used for recreational fishing or frog gigging are permitted.
- (7) Boats with power in excess of the manufacturer's rating for the boat will not be permitted on impounded waters.
- (8) All persons operating boats on the impounded waters of the MCBQ, should be qualified swimmers. Any person who is not a qualified swimmer is required to wear approved PFDs.
- (9) Personnel operating boats will go to the nearest safe shore whenever adverse weather approaches. It is not necessary to return to the launch site, any safe haven will do until the danger passes.

- (10) Personnel 14 years of age or under will not be permitted to operate a boat and will wear a PFD at all times.
 - e. Fueling of Boats. The following rules will be followed:
- (1) Fueling will be completed before dark, except in emergencies.
- (2) Whenever a boat is moored at the fuel dock do not smoke, strike matches, or throw electrical switches; stop all engines, motors, fans, and devices liable to produce sparks; and turn off lights and galley fires.
- (3) Before starting to refuel, verify that the boat is moored securely; close all ports, windows, doors, and hatches.
- (4) During fueling, keep nozzle of hose or can in contact with fuel opening to guard against possible static sparks and ensure that no fuel spills/vapors get below deck.
- (5) After fueling is completed, close fill opening; wipe away all spilled fuel; open all ports, windows, doors, and hatches; permit boat to ventilate for at least 5 minutes; and check to see that there is no odor of gasoline in the bilges or below deck spaces before starting engine.
- f. <u>Playgrounds</u>. The following requirements and recommendations apply to playgrounds owned and operated by MCBQ. Also refer to specific requirements in reference (ii), and (jj) published by the Consumer Products Safety Commission (CPSC).
- (1) Playground equipment shall be carefully selected for the age group that will use it. Daily inspections of equipment and playgrounds shall be conducted by the facility manager for those playgrounds under their control (e.g., Lunga Reservoir, Crossroads Inn, Dependent Schools, Family Housing areas and the Child Development Center). Quarterly inspections shall be conducted by the MCCS Safety Specialist and DoD Domestic Dependent Elementary and Secondary Schools (DDESS) Safety Representatives with results forwarded to the Director, MCCS Division and the Director, Safety Division. Semi-annual inspections on all playgrounds will be conducted by the Safety Division. Equipment that is poorly designed or improperly installed, rusted, or deteriorated shall be tagged, "off limits," and roped off until repaired or removed. A

file shall be maintained by the facility manager to record repairs. Information should include the manufacturer's name, model number, and date of purchase.

- (2) Playground equipment will be located over impact absorbing material. It shall be approximately 6 to 12 inches deep. Drainage of playground areas shall ensure a relatively dry surface.
- (3) Playgrounds near deep holes, ravines, or bodies of water, etc., shall be fenced to prevent children from wandering into dangerous areas. Family housing occupants may not place their personal playground equipment near deep holes, ravines, or bodies of water, etc. Playground equipment shall be placed a safe distance away from ball fields.
- (4) Equipment shall be anchored in concrete below the The diameter of swinging exercise rings should be smaller than 5 inches to prevent a child's head from being entrapped. of bolts and tubing on equipment, extending more than 1/8," shall be covered with protective caps that cannot be removed by hand. "S" hooks shall be pinched closed. Playgrounds will be free of tripping hazards such as roots, rocks, or other obstacles. on equipment shall be lead-free with no peeling or chipping. Paints and other similar finishes for playground equipment should meet current CPSC regulations for lead in paint (0.06 percent maximum lead by dry weight). Purchasers of playground equipment should obtain documentation from the manufacturer that preservatives or other treatments applied to the equipment does not present a hazard to patrons. Wood structures must be free from cracking or splitting. Moving parts that could pinch or crush should be concealed on gliders, seesaws, and merry-go-rounds.
- (5) Rungs on climbing equipment shall be designed with a slip-resistant finish. Additionally, rungs of climbing apparatus should be spaced evenly and far enough apart (at least 9 inches) to prevent head entrapment.
- (6) A minimum clearance of 24 inches should be maintained between each swing and 30 inches from the frame structure. Swing seats shall be constructed of lightweight material such as plastic, rubber or canvas with edges rounded or smoothly finished. Free swinging ropes shall not be used because they may fray or form a loop, creating a strangulation hazard. Slides shall be equipped with 4-inch side borders for their entire length. Slides should have a protective barrier at the top to prevent falls while a child is changing from a climbing to sliding position. (For slides over

- 4 feet high, the barrier is to be at least 38 inches in height). The horizontal platform at the top of the slides should be at least 22 inches in length and as wide as the slide. The steps on slides should be at least 15 inches wide with a slip-resistant finish. Steps on slides should be evenly spaced with at least 7 inches and not more than 11 inches between them. Slides should have continuous handrails on both sides of their steps that allow a child to stand erect over each step. Slides should be located in a shaded area to prevent the metal from becoming hot due to the sun.
- (7) Merry-go-rounds shall have handrails that do not protrude beyond the edge of Marine Corps Base, Quantico (MCBQ).
- (8) Covered receptacles shall be provided for disposal of trash.
- (9) For other requirements refer to the specifications listed in reference (jj).

g. Playing Fields

- (1) Playing fields must be kept relatively flat and free of holes, ridges, stones, and other debris. Goal post, light poles, guy wires, and exposed fence posts inside the playing field shall be padded. Padding should be 8-foot in height to prevent injury to players. Playing fields shall be marked with non-caustic materials. The soles of players' shoes will be made of rubber material only. Screw-in spikes of any material will not be allowed. Spikes or ridges on soles will be of a rubber-like substance and molded into the sole itself.
- (2) MCCS staff members shall perform daily inspections during the season when the playing fields are being used. Portable and stationary bleachers shall be inspected every 2 years by Facilities Maintenance personnel. The MCCS Safety Specialist shall inspect bleachers prior to each season. Facility managers will inspect them daily. Bleachers over 4 feet in height will be provided back and side guard rails with intermediate railings to prevent falls.
- (3) Softball spectator bleachers should be placed behind backstops unless the height of sideline fences are 8 feet or higher. Fences under 8 feet do not adequately protect spectators while sitting or standing. Warning tracks should be provided as well as 8 feet high fences in the outfield for players' safety. The top bar of outfield fences lower than 8 feet creates a serious

collision hazard for players and should be padded. Fences will be in good repair and free of sharp edges protruding into the playing area. A 20-foot high backstop with a 5 feet overhang should be installed. Dugouts should be faced with fencing material and sidelines will be kept free of tripping hazards. Bats, practice balls, and gloves will not be allowed to accumulate along the dugout fences in the playing area. Breakaway or safety bases are highly recommended for all softball games. These bases will help reduce sliding injuries. Softball bats will be equipped with handgrips of a non-slip material. Players shall remove all watches and jewelry before games. Flat wedding bands may be worn, provided that they are taped or worn under gloved hands.

- h. Recreational Shooting Ranges. The shotgun ranges at Quantico are maintained and scheduled by Commanding Officer, Weapons Training Battalion. The Quantico Shooting Club, by formal agreement with the Commander, MCBQ, is a primary user. Reference (kk) and local SOP will be followed to ensure the safety of all personnel. Reference (nn) shall be followed to ensure the safety of patrons. Also see PPE requirement cited in paragraph 7004.5 below.
- i. Other Recreation Facilities and Activities. For other specific recommendations and requirements refer to references (gg), (ii), and (ll).
- 7004. PERSONAL PROTECTIVE EQUIPMENT. Use of PPE will be enforced by supervisors during all hazardous recreational activities. The following activities require specific PPE use:
- 1. <u>Bicycling</u>. Bicyclists will wear a reflective belt/vest at all times. This belt or vest must contain reflective material that is visible from the front and from the rear, and can be seen from a distance of 300 feet when illuminated by headlights. In addition, American National Standards Institute or Snell Memorial Foundation bicycle helmets shall be worn by all persons (including family members) riding bicycles on MCBQ as required in reference (mm). Head phones for portable radios, cassette players and CD players, shall not be worn.
- 2. <u>Boxing</u>. Mouth guard, U.S.A. Amateur Boxing Federation approved protective headgear, gloves and groin protector for sparring and competition are mandatory.
- 3. <u>Hunting</u>. Blaze orange clothing per Marine Corps requirements, or Virginia law, is required.

- 4. <u>Karate</u>. Reference (oo) approved head, mouth, groin, shin and foot protection are required.
- 5. <u>Clay Pigeon/Skeet/Shotgun Range</u>. ANSI approved protective eyewear and hearing protectors are required.
- 7005. RECREATION AND NON-OPERATIONAL HAZARD ABATEMENT. Safety Division shall include recreation and non-operational hazardous conditions into the MCBQ Hazard Abatement Log, related to MCCS activities with risk assessment codes of 1, 2, or 3 that cannot be corrected within 30 days. In most cases, hazardous conditions affect both workers and patrons. A Notice of Hazard will be posted at, or near, the location of the hazardous condition, per paragraph 4001.4 of this manual.
- 7006. TRAINING. Education is vital to the success of every safety program. Quarterly hazard awareness training, seasonal sports briefs and qualification training will be provided to ensure individuals are aware of specific hazards, PPE requirements, and procedures for protecting themselves while off-duty.
- Hazard Awareness Training. MCCS Unit Safety Representatives and workplace supervisors will ensure quarterly hazard awareness training is conducted for their personnel. MCCS staff personnel will assist the Director, MCCS Division with the development of recreational training material. A variety of training methods and materials may be used, including: safety stand-downs, division and department briefs, supervisory briefs, videos, and guest speakers. Safety materials in the form of brochures, pamphlets, magazines, or newsletter articles shall be distributed by MCCS personnel. Reference (pp) contains information about quarterly hazard awareness training. Included are lesson plans, briefing sheets, fact sheets from CPSC, U.S. Coast Guard, and the National Safety Council detailing hazardous items and products around the home. Resource manuals are available from the Commander, Navy Safety Center (Code 46), 375 A Street, Norfolk, Virginia 23511-4399. Documentation of the training conducted and of attendees is required to be maintained for 5 years.
- 2. Qualification Training. Patrons using MCBQ's automotive and woodworking hobby shop equipment and recreational watercraft are exposed to serious hazards. Their qualifications for these activities will be noted and evaluated. Competent MCCS

staff members will provide training to ensure patrons are qualified to safely operate power tools and equipment, hydraulic lifts, welding and spray painting equipment, and watercraft. Qualification training for watercraft is explained in paragraph 7003.2(c)(1) of this manual. For power equipment, safety precautions, equipment guards, and PPE will be emphasized. Automotive and woodworking hobby shop qualification guides and small boat qualification guides have been developed and are frequently updated to provide basic familiarization with these activities. They are also available from Commander, Navy Safety Center (Code 46). A record of qualifications for each of these activities will be maintained. It is recommended they be kept at each facility.

- 3. <u>Sports Briefs</u>. Intramural safety briefs will be conducted by MCCS staff members. Coaches and game officials will be briefed on rules of the game, additional league safety precautions, and PPE requirements. Proper conditioning techniques, warm-up and cooldown exercises will be discussed. Coaches shall use this information to brief their players. Documentation will be maintained by MCCS.
- 4. <u>Training Records</u>. Records for quarterly and qualification training will be maintained for 2 years. Documentation will include a log of scheduled training, dates of training and names of attendees. Each department should maintain its own training records. These records will be available for annual inspections.

CHAPTER 8

HAZARD COMMUNICATION PROGRAM

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CHAPTER 8

HAZARD COMMUNICATION PROGRAM

- 8000. <u>PURPOSE</u>. To promulgate instructions and provide guidelines for hazardous chemicals onboard Marine Corps Base, Quantico (MCBQ).
- 8001. <u>BACKGROUND</u>. After the reference (i) passed, it was apparent workers were unaware of the potential effects from harmful chemicals used in their workplace. Therefore, Congress passed the reference (g). Reference (d) adopted Occupational Safety and Health Administration (OSHA) Codes and established the Hazard Communication Program.

8002. INFORMATION

- 1. A Material Safety Data Sheet (MSDS) is the heart of the Hazard Communication Program. It includes specific, critical product and hazard information and must be readily accessible and available in the workplace. An MSDS is required for every hazardous chemical on the workplace hazardous chemical inventory.
- 2. Each employee must know if a chemical is harmful/potentially harmful to health. Figures 8-1 and 8-2 provide this information; items listed are harmful and require an MSDS.

8003. RESPONSIBILITIES

1. Supervisors

- a. Attend Hazard Communication training provided by the Safety Division within 90 days of appointment as a supervisor.
- b. Implement a written Hazard Communication Plan that relates to your organization (see figure 8-5). Elements of a written plan must include the complete hazardous chemical inventory, the workplace plan for providing MSDSs, the type of labeling system being used, the workplace plan for ensuring employees are trained, and the location of written materials.
- c. Ensure each employee understands the Hazard Communication Program and reads the MSDS before using a hazardous chemical. This

is accomplished through training. Ensure all training is documented. Provide training initially and whenever a new chemical hazard is introduced into the workplace.

- d. Initially request an MSDS on requisitions for hazardous chemicals, i.e., "It is requested the MSDS for this hazardous material accompany shipment."
- e. Maintain an MSDS for each hazardous chemicals listed on the hazardous chemical inventory. Ensure MSDSs are readily accessible and available to all personnel. Keep them in a labeled binder in the work area. Should products be purchased that do not come with an MSDS, one may be requested from the manufacturer using the sample letter at figure 8-4. An MSDS may also be acquired at various internet web sites after conducting a search for "material safety data sheets."
- f. Maintain a hazardous chemicals inventory using MCBQ Form 5100/4, figure 8-3, or electronically, as in a database or spreadsheet. Safety Division inspectors will review this inventory during annual safety inspections.
- g. Ensure hazardous chemical containers are labeled. If a label is damaged/missing, replace it immediately. The label must list the chemical name, manufacturer's name and address, and appropriate hazard warnings. Labels must be legible and be in English.

2. Purchasing & Contracting Branch, Issue Points and Self Service Store, G-4

- a. Identify and note hazardous chemicals on requests.
- b. Notify Natural Resources and Environmental Affairs Branch (NREA), G-5 when ordering hazardous chemicals not normally stocked.
 - c. Provide an MSDS with hazardous chemicals issued.

3. Safety Division

- a. Provide Hazard Communication Program training.
- b. Serve as the point of contact and provide information about MSDSs and the Hazard Communication Program.

Federal	Supply Class
6810	Chemicals
6820	Dyes
6830	Gases; Compressed and Liquefied
6840	Pest Control Agents and Disinfectants
6850	Miscellaneous Chemical Specialties
7930	Cleaning and Polishing Compounds and Preparations
8010	Paints, Dopes, Varnishes, and Related Products
8030	Preservatives and Sealing Compounds
8040	Adhesives
Group 9	1 (Packaged Products Only)
9110	Fuels, solid
9130	Liquid Propellants and Fuels, Petroleum Base
9135	Liquid Propellant Fuels and oxidizers, Chemical Base
9140	Fuel Oils
9150	Oils and Greases: Cutting, Lubricating, and Hydraulic
9160	Miscellaneous Waxes, Oils, and Fats

Figure 8-1.--Federal Supply Classes in Which All Items Must be Identified and Certified.

Federal	Ti+lo	Hazardous Items Requiring Identification
Supply Class	<u>Title</u>	Idelitification
1370	Pyrotechnics	Warning fuses, fire starter
1375	Demolition Materials	Explosive device
2640	Tire rebuilding and tire and tube repair materials	Only items containing flammable or toxic compounds
3439	Welding and brazing	Only hazardous items as cleaners, acids, flux supplies that contain or produce hazardous fumes
3610	Printing, duplicating, and bookbinding equipment	Flammable or toxic lithographic solutions
5610	Mineral construction	Hazardous items such as cutback asphalt, deck floor covering, deck and compound, sealing surface underlay compounds, and flight deck compounds
5640	Wallboard, building paper, and thermal materials	Asbestos cloth which has loose fibers or filings that may become airborne
6135	Batteries, Non- rechargeable	Lead-acid mercury primary and alkaline (with electrolyte)
6505	Drugs, biological, and official regents	Only hazardous items
6570	Photographic supplies	Only items containing hazardous chemicals, solvents, thinners, and cements
6780	Photographic sets, kits, and outfits	(See FSC 6750)

Figure 8-2.--Federal Supply Classes in Which Only Hazardous Items Need be Identified.

7510	Shop supplies	Only hazardous items, such as solvents, thinners, flammable and varnishes
8510	Certain containers	Shipping containers and pressurized containers with flammable propellants only
8520	Toilet soap	(See FSC 8510)
8720	Fertilizers	Only items containing weed and pest control or other harmful ingredients, or which because of their composition are hazardous
9920	Smoker's articles and Matches	Lighter fuel and matches only

When deciding if a material in your workplace should be a part of your HAZMAT inventory, ask yourself these questions:

- 1) Is it Flammable/Corrosive/Toxic/Reactive?
- 2) Will it cause adverse health effects?
- 3) Is personal protective equipment required for its use?

If the answer to all three is "no," leave it out. If the answer to any of these is "yes," then it must be included.

Exclude: White Out
Hand Lotion
Hand Soap
Hand Sanitizer
Detergent
Glass Cleaner
Furniture Polish
Personal Items
Scouring Powder
Sweeping Compound
Sand
Glass

Glass
Salt
Metal Stock

Lumber
Abrasives

Figure 8-2.--Federal Supply Classes in Which Only Hazardous Items Need be Identified--Continued.

HAZARDOUS MATERIAL INVENTORY FORM

Local Control Number:

Product Name (Trade/Common):

Location: Building:

Division/Branch/Shop:

National Stock Number:

Manufacturer:

Address:

Product Use (Brief description):

Mission Essential: Yes No

Special Requirements: (disposal, storage, and special handling)

- NOTE: 1. For reference purposes, the Local Control Number is to be assigned sequentially by the division's safety representative (Unit Safety Representative). Shops should consider using individual shop number as the prefix for each number, i.e., Shop 84 would have numbers 84-001 through 84-1120.
 - 2. Please specify pounds or gallons for all quantities.
 - 3. Paint shops provide copies of paint usage logs.

Figure 8-3.--Hazardous Material Inventory Form.

SAMPLE MSDS REQUEST LETTER

5100 (Office Code) (Date)

Cooper Precision, Inc. Attn: E. Jones 6923 W. Hobson Blvd New York, NY 11378

REQUEST FOR MATERIAL SAFETY DATA SHEETS

Dear Mr. Jones:

Current regulations require that we have a Material Safety Data Sheet (MSDS) on file for each potentially hazardous material used in our operations.

A survey of our operations reveals that we do not have such a form on file for the products described in the enclosure. Accordingly, we must request our procurement personnel to curtail any future orders of this material until we have obtained an MSDS. Please submit the MSDSs at your earliest convenience for the products described in the enclosure.

Thank you for your cooperation in this matter.

Sincerely,

I. M. SAFETY MANAGER

Encl: (1) Description of Chemicals

Figure 8-4.--Sample Letter to Manufacturer Requesting Material Safety Data Sheets.

WRITTEN HAZCOM PLAN (EXAMPLE)

Basic format for developing Hazard Communication Plan --- (Fill in blanks and type final written program for your work area.)

Hazard Communication SOP for ______ (shop or branch) to be in compliance with 29 CFR 1910.1200.

1. <u>Purpose and Scope</u>. The purpose of this plan is to ensure that ______ (shop or branch) is in compliance with the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS) (29 CFR 1910.1200).

2. General

- a. The Safety Division is the overall coordinating activity for the facility program, acting as the representative of Commander, Marine Corps Base, Quantico (MCBQ) who has overall responsibility.
 - b. In brief, the substance of the HCS is:
 - (1) Master hazardous chemicals inventory.
 - (2) Use of material safety data sheets (MSDS).
 - (3) Labels and other forms of warning.
 - (4) Employee training in the HCS.
- c. Each employee in the facility will be apprised of the substance of the HCS, the hazardous properties of the chemicals they work with, and measures to take to protect themselves from these chemicals.

3. List of Hazardous Chemicals

- a. The NREA, G-5 will maintain a master list of all hazardous chemicals used at MCBQ and update the list as necessary.
- b. The hazardous chemical master list will be updated upon receipt of hazardous chemicals at MCBQ and this list will be maintained at NREA, G-5.

Figure 8-5.--Written Hazard Communication Plan.

c. The (supervisor or foreman) will maintain
a shop hazardous chemicals inventory of all hazardous chemicals
used in (shop or branch). The shop hazardous
chemicals inventory will be updated when new hazards or chemicals
are introduced into (shop or branch) and a yearly
inventory completed and sent to the NREA, G-5 by 30 November of
each year.
cacii year.
4. <u>Material Safety Data Sheets</u>
a. The (supervisor or foreman) will maintain
an MSDS for every substance on the hazardous chemicals inventory
in (shop or branch). The MSDS will consist of a
fully completed OSHA Form 174 or equivalent. The
(supervisor or foreman) will ensure that (shop
or branch) maintains an MSDS for every hazardous chemical used in
that area. MSDSs will be readily accessible and available to all
personnel in the workplace.
personner in the workprace.
b. The (supervisor or foreman) is responsible
for acquiring and updating MSDSs for their work locations. The
(supervisor or foreman) will review each MSDS
for accuracy and completeness and will consult with the Safety
Division if additional research is necessary. All new procurements
for the facility must be cleared by the NREA, G-5. Whenever
possible, the least hazardous substance will be procured.
possibie, the least hazardous substance will be protuited.
c. MSDSs that meet the requirements of the HCS must be fully
completed and received at the facility either prior to, or at the
time of receipt of the first shipment or any potentially hazardous
chemical purchases from a vendor. It may be necessary to
discontinue procurements from vendors failing to provide approved
MSDSs in a timely manner.
MSDSS III a CIMELY Maintel.
5. Labels and Other Forms of Warning
<u></u>
a. The (supervisor or foreman) is designated
to ensure that all hazardous chemicals in the
(shop or branch) are properly labeled. Labels should list the
chemical identity, appropriate hazard warnings, and the name and
address of the manufacturer, importer, or other responsible party.
The (supervisor or foreman) will refer to the
corresponding MSDS to verify label information. Portable
containers into which materials are drained for immediate use by
the worker drawing the material, do not require labeling. To meet
the labeling requirements of the HCS for other in-house containers,
5 -

Figure 8-5.--Written Hazard Communication Plan--Continued.

refer to the label supplied by the manufacturer. All labels for in-house containers will be approved by Safety Division prior to their use.

]	Э.	The				(s	upe	rvis	or o	or fore	man)	wil	.1	check,
on	а	mo	nthly	basis,	to	ensur	e th	at	all	cont	cainers	in	the	fa	cility
are	. د	lab	eled	correct]	у а	and la	bels	ar	e up	to	date.				

6. Training

- a. All personnel who work with, or are potentially exposed to hazardous chemicals, will receive initial training on the HCS and the safe use of those hazardous chemicals. Additional training will be provided for personnel whenever a new hazard (not just a new chemical), is introduced into their work areas. Hazardous chemical training is conducted by ______ (supervisor or foreman). Attach a copy of course lines, training schedules, and a list of course materials for your record and distribution during your training sessions.
 - b. The training will emphasize these elements:
- (1) Physical, chemical, and health hazards in the work place.
- (2) Methods and observations used to detect the presence or release of a hazardous chemical and the means to protect against it.
- (3) Protective measures and equipment and emergency procedures.
 - (4) Labeling requirements.
- (5) Where MSDSs are located, how to understand their content, and how personnel may obtain and use appropriate hazard information.
- (6) Supervisor's and contractor's responsibilities in informing each other of their specific Hazard Communication Program (HazCom).
 - (7) Training on this written program (chapter 8).
 - c. The Safety Division will monitor and maintain records of Figure 8-5.--Written Hazard Communication Plan--Continued.

personnel training, and advise the unit supervisor on training needs.

7. Contractor Workers

- a. Once a contractor is awarded a contract, they will receive written pre-construction meeting notes, by U.S. mail, which outline MCBQ's HazCom. The contractor is responsible for informing their personnel on the MCBQ HazCom Program.
- b. MCBQ supervisors or foremen will provide information to contractor workers regarding any chemical hazard which may be encountered in the normal course of their work.

Figure 8-5.--Written Hazard Communication Plan--Continued.

CHAPTER 9 CONFINED SPACE MANAGEMENT PROGRAM

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CHAPTER 9

CONFINED SPACE MANAGEMENT PROGRAM

- 9000. <u>PURPOSE</u>. To prescribe policy and guidance for the Confined Space Management Program (CSPM).
- 9001. <u>BACKGROUND</u>. Personnel entering, working in, or on confined or enclosed spaces may encounter a number of potentially serious hazards. Such hazards may include; oxygen deficiency or enrichment, presence of flammable/explosive atmospheres or materials; presence of toxic atmospheres and materials; or the existence of general safety and health concerns (slippery surfaces, conduits/cables, machinery and electrical devices, and poor illumination). Confined spaces include, but are not limited to; storage tanks, process vessels, pits, vats, boilers, fuel cells, sewers, underground utility vaults, tunnels, and manholes.
- 9002. <u>POLICY</u>. All confined spaces shall be considered hazardous and entry is prohibited until evaluated by a qualified person. Entry into or work in confined spaces may only be accomplished by personnel who have received mandatory, documented confined space safety and hazard recognition training. Contractor personnel working with Marine Corps Base, Quantico (MCBQ) personnel must provide proof of confined space training prior to performing confined space work.

9003. DEFINITIONS

- 1. <u>Confined Space</u>. A space large enough and so configured that an employee can bodily enter and perform assigned work; has limited or restricted means for entry or exit; and is not designated for continuous human occupancy.
- 2. Permit Required Confined Space. A space that has one or more of the following characteristics; contains or has the potential to contain a hazardous atmosphere; contains a material that has the potential for engulfing an entrant; has an internal configuration that could trap or asphyxiate; or contains any other serious safety or health hazard.
- 3. <u>Class IV Space</u>. Does not have or potentially have (with respect to atmospheric conditions) a hazard capable of causing death/serious harm.

- 4. <u>Class III Space</u>. Contains contaminated atmospheres/conditions, but is not hazardous or immediately dangerous to life and health (IDHL). Examples are:
- a. Oxygen content greater than 19.5 percent, but less than 23.5 percent.
- b. Flammables or flammable atmospheres at less than 1 percent of the Lower Explosive Limit (LEL).
 - c. Toxic agents below Permissible Exposures Levels (PEL).
- 5. <u>Class II Space</u>. Contains dangerous atmospheres/conditions, but below IDLH. Examples are:
- a. Oxygen content greater than 16.5 percent, but less than 19.5 percent.
- b. Flammable atmospheres greater than 1 percent, but less than 10 percent of the LEL.
 - c. Toxic agents at or above PELs, but below IDHL.
- 6. <u>Class I Space.</u> Contains IDLH atmospheres or conditions. Examples are:
- a. Oxygen content less than 16.5 percent, or greater than 23.5 percent.
 - b. Flammable gases/vapors at or above 10 percent of the LEL.
- c. Toxic agents at a level whose 30 minute exposure will cause permanent injury or death.
- 9004. PROGRAM MANAGEMENT. The Commander, Marine Corps Base, Quantico (Comdr MCBQ) shall appoint, in writing, a qualified Confined Space Program Manager (CSPM) who shall implement a program consistent with Federal, Department of Defense (DoD), Department of the Navy, and Marine Corps standards.
- 9005. <u>BASIC PROGRAM ELEMENTS</u>. The confined space entry program consists of six program elements as follows:
- 1. <u>Identification and Preliminary Evaluation</u>. The CSPM, in coordination with commanders and supervisors, shall identify and

evaluate confined spaces and identify hazards. All manholes, aboard MCBQ are considered confined spaces and entry through any marked or unmarked manhole shall be conducted per this confined space program.

- 2. <u>Preventing Unauthorized Entry</u>. Supervisors shall brief workers on restrictions regarding confined spaces and secure spaces under their control. Also, a confined space shall be posted with the following:
 - a. "UNAUTHORIZED ENTRY PROHIBITED."
 - b. The hazards inside.
 - c. Person to contact.
- 3. <u>Comprehensive Hazard Evaluation</u>. Confined spaces will be evaluated before entry. Use the Entry Permit to document this process. Post, file and route the permit. Evaluations shall include:
- a. <u>Initial Atmospheric Testing</u>. Initial testing shall be performed from outside the space (drop tests or sample probes) by the qualified person or CSPM. Ensure all levels of the space are sampled.
- b. <u>Periodic and Continuous Atmospheric Testing</u>. Many operations generate hazardous conditions and require periodic or continuous monitoring. The testing frequency and type depends on conditions and work performed. No single rule can be established for all operations and conditions. The qualified person or CSPM shall establish this.
 - NOTE: Calibration gases have a limited shelf life; reorder as necessary to have in-date gases. Carbon monoxide lasts 2 years; hydrogen sulfide lasts 1 year; chlorine lasts 6 months. Test equipment should be standardized. When ordering test equipment, contact the CSPM for advice. Calibration checks shall be made before and after use and logged.
- 4. <u>Issuance of Confined Space Entry Permits</u>. To enter a confined space, the entry supervisor shall request a permit from a qualified person. The request shall include a description of the space, the operation to be performed, and a list of entrants/attendants/supervisors. Based on the comprehensive

evaluation, the qualified person or CSPM shall grant the permit only if the entry or work can be performed safely. Permits shall be valid for the period specified (normally no longer than 8 hours). Only the CSPM can sign an entry permit for Class I-II; the CSPM or qualified person can sign a Class III. If work is interrupted (i.e., lunch) the permit is terminated; another permit must be issued. Use NAVMC 11405 (Figure 9-1) for confined space entry permits. This form is available through the Marine Corps Electronic Forms System and also in the Navy Supply System. The qualified person shall distribute the permit as follows:

- a. One copy posted at each entrance.
- b. One copy to the requesting manager.
- c. One copy to the CSPM.
- d. One copy to the Fire Inspector if a Hot Work Permit was issued.

5. Training and Qualifications

- a. MCBQ qualified persons shall be trained and certified by the CSPM. Training shall include use, maintenance, and calibration/functional check of test equipment. Qualified persons shall receive at least 12 hours of initial classroom instruction and 4 hours of on-the-job-training. A minimum of 2 hours annual refresher training shall be provided. All qualified persons shall be re-certified by the CSPM annually. A certification card, valid for 1 year from date of training, will be issued to each individual completing the training.
- b. Supervisors shall ensure that entrants/attendants are aware of the hazards and safety measures. The CSPM shall assist in training. Supervisors, entrants, and attendants must receive annual training.
- c. Personnel required to enter confined spaces shall have this requirement included in their position description or personnel records. They shall receive a pre-placement physical examination that is based upon the type work and hazards to be performed, an annual examination based on the potential of related hazards, and a termination examination upon termination of employment or reassignment to other duties.
 - d. Contract employees will receive training on MCBQ procedures

provided they have received initial confined space training from the contractor.

- 6. <u>Program Evaluation</u>. The Comdr MCBQ shall make, or cause to be made, an annual evaluation of the CSPM. DoD Class A and B mishaps will be investigated by the CSPM. DoD Class C mishaps or accidents will be investigated by the supervisor in charge with CSPM assistance.
- 9006. REQUIREMENTS FOR CONFINED SPACE ENTRY. The following apply:
- 1. <u>Entrant</u>. The supervisor shall ensure personnel are medically fit and that claustrophobic personnel are excluded.
- 2. Attendants. Attendants are mandatory for Class I-III space entry. The attendants shall be listed on the entry permit. Attendants shall be equipped with radios or other communications equipment to ensure prompt emergency response. Attendants will not attempt a rescue by entering the space. Attendants shall have no other duties assigned to them during confined space entry work.
- 3. <u>Personal Protective Clothing and Equipment</u>. The required clothing and equipment shall be listed on the entry permit. The supervisor shall ensure that entrants and attendants are trained in personal protective clothing and equipment use.

4. Preparation of Spaces

- a. Protection from External Hazards. Appropriate measures shall be taken to isolate the space from energy and to prevent release of hazardous material into spaces. Such measures include lockout and/or tagout of electrical/mechanical devices; blanking, blinding, removal, or misalignment of pipe sections, etc. Measures (e.g., the placement of barriers around confined spaces) shall also be taken to ensure that entrants are protected from vehicle or pedestrian traffic, dropped objects, etc. These measures will also prevent bystanders from falling into spaces, such as open manholes. Electrical lighting, or other electrical equipment in use, shall meet requirements of Class I, Division 1 explosive-proof equipment, if a flammable atmosphere may be present. At night, lighting shall be provided around confined spaces.
- b. <u>Ventilation</u>. Class I and II spaces shall be mechanically ventilated while occupied.

- c. <u>Space Cleaning</u>. It is often necessary to clean the space before work can be accomplished. Agents used during the cleaning process may be hazardous or incompatible with the previous contents of the space. Also, cleaning may disturb residues and sludge, releasing toxic or flammable gases. The space must be tested after cleaning and prior to entry.
- d. <u>Inserting</u>, <u>Pressing-Up</u> and <u>Steam Blanketing</u>. When it is necessary to perform hot work on the exterior boundary of a confined space containing a potentially explosive or flammable atmosphere or materials, the space shall be ventilated sufficiently to eliminate the hazard. When ventilation is impractical or does not insure safety, the space shall be inserted, pressed-up, or steam blanketed, as appropriate.

9007. RESTRICTIONS

- 1. <u>Class III Spaces</u>. A retrieval system shall be used and an attendant shall be in communication with the entrant at all times.
- 2. Class II Spaces. Flammables, toxic agents, or deviations of oxygen content in a space may be due to the materials and conditions in the space. The cause or source of the contamination shall be identified and removed to the maximum degree possible by cleaning, ventilating, or other such treatments prior to entry. An attendant shall be stationed immediately outside the entrance to the space. A retrieval system shall be used. Where operations are conducted which introduce flammables, toxic agents, or oxygen deviations within the space, such as spray finishing, welding, cutting, or solvent cleaning, the following shall be observed:
- a. General or local exhaust ventilation, or combination, shall be provided per Occupational Safety and Health Administration (OSHA) requirements. Air cannot be blown into class II spaces.
 - b. Personal protective equipment (PPE) shall be provided.
- c. Explosion proof, spark proof, or intrinsically safe equipment shall be used in potentially flammable atmospheres. Potential ignition sources shall be closely controlled.
- 3. <u>Class I Spaces</u>. Class I Space entry shall not normally be permitted and is only authorized for:
- a. Cases of rescue, emergency repair, or other extreme emergency. Entrants shall use:

- (1) Self-contained breathing apparatus (positive pressure).
- (2) A retrieval system.
- (3) Other PPE as necessary. Emergency rescue personnel shall be standing by. Constant communication shall be maintained between the entrant and attendant.
- b. External cold work may be performed, provided the work does not generate ignition sources.
- c. External hot work may be performed if the interior atmosphere is not flammable, and a hot work permit has been issued by the Fire Department.
- 9008. SPECIAL PRECAUTIONS FOR SPECIFIC OPERATIONS. Hot work includes flame heating, welding, torch cutting, brazing, carbon arc gouging, or work which produces heat of 400°F or more, or in flammable or combustible atmospheres, use of ignition sources such as spark or arc producing tools or equipment, static discharges, friction, impact, open flames or embers, and non-explosion proof lights, fixtures, motors, or equipment. The provisions of appropriate OSHA regulations apply to hot work performed in confined spaces, and hot work performed on closed structures or containers such as pipes, drums, ducts, tubes, jacketed vessels, and similar items. All hot work in confined spaces shall require exhaust ventilation to remove fumes. Hot work should not be performed on tanks that previously contained flammable/combustible products.
- 9009. EMERGENCY RESCUE PROCEDURES. The qualified person will document on the Entry Permit procedures on who to contact and how in an emergency. Normally the Head, Fire Prevention/Protection Branch, Security Battalion will provide this support. The qualified person or CSPM may establish an emergency rescue control point that is closer than the Fire Prevention/Protection Branch facilities if they deem it necessary, i.e., a Class I space entry. The Fire Department has the authority to cancel a confined space permit if they feel the entry is not being conducted safely or they recognize an uncontrolled hazard.
- 9010. CONTRACTOR OPERATIONS. Contractors aboard MCBQ:

- 1. The contractor shall provide a qualified person per references (g) and (v).
- 2. Marine Corps personnel shall not issue entry permits for contractors due to the liability, except where failure to do so would create an extreme emergency and would endanger personnel and property, and may, therefore, cause even greater potential liability. Such cases shall be authorized by the Comdr MCBQ and shall be personally conducted and supervised by the CSPM, except where the nature of the emergency is so extreme that delays created by seeking the Commander's approval or the personnel services of the CSPM would create a greater danger.
- 3. When Marine Corps and contractor personnel occupy the same space, the Marine Corps qualified person and a contractor representative shall issue separate entry permits. The contractor shall be informed of the Marine Corps findings. However, the contractor shall also be informed by the contracting officer that the contractor retains legal obligation for the safety of contractor personnel. Marine Corps personnel cannot make an entry based upon an entry permit from a contractor.

CONFINED SPACE ENTRY PERMIT, MCBQ, QUANTICO

COMMAND:	WORK CENTER:
BLDG/COMPARTMENT/SPACE NO:	REQUESTED BY:
DATE: / / TIME: H	PERMIT NOT VALID
AFTER:	
PURPOSE OF	
ENTRY:	
INSTRUMENT MODEL SERIAL (CAL DATE
INITIAL TESTS/INTERMITTENT TEST	rs (every 30 min):
TESTER'S	
INITIALS:	
TIME:	
OXYGEN:	
H2S:	
OTHER:	
RESPIRATORPPECUTTING/WH	EDLIGHTINGRETRIEVAL EQUIP ELDING PERMITFIRE EXTINGUISHER
OTHER:COMMUNICATION PRACTICE:	
NOT SAFE FOR PERSONNEL - NOT	SAFE FOR HOT WORK
	ROTECTION - NOT SAFE FOR HOT WORK
SAFE FOR PERSONNEL - NOT SAFE	
SAFE FOR PERSONNEL - SAFE FOR	R HOT WORK
HOT WORK	
ATTENDANT, PRINT/SIGNATURE:	
ENTRANTS, PRINT/SIGNATURE:	
SUPERVISOR, PRINT/SIGNATURE:	
QUALIFIED PERSON, PRINT/SIGNATU	JRE:
	RADIO CALL SIGN:
	NOTIFY SAFETY OF PROBLEMS
INDUSTRIAL HYGIENE: 1674	PMO TRAFFIC:

Figure 9-1.--MCBQ Form 5100/5 (EF), Confined Space Entry Permit, Marine Corps Base, Quantico.

CHAPTER 10

CONTROL OF HAZARDOUS ENERGY SOURCES (LOCKOUT/TAGOUT PROGRAM)

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CHAPTER 10

CONTROL OF HAZARDOUS ENERGY SOURCES (LOCKOUT/TAGOUT PROGRAM)

10000. <u>PURPOSE</u>. To promulgate instructions and provide guidelines, practices and procedures necessary to disable machinery or equipment and prevent release of potentially hazardous energy while maintenance and servicing activities are being performed aboard Marine Corps Base, Quantico (MCBQ) per reference (g).

10001. GENERAL. Lockout/Tagout (LO/TO) is part of a complete energy control program designed to provide employees with guidelines on how to recognize and control hazardous energy sources. Lockout, not tagout, is the preferred method of energy control.

10002. RESPONSIBILITIES

1. Director, Safety Division

- a. Appoint a LO/TO Program Manager.
- b. Ensure program training is the responsibility of the ${\rm LO/TO}$ Program Manager.
- c. Ensure LO/TO review is included in annual safety inspections.
- 2. <u>Lockout/Tagout Program Manager</u>. The LO/TO Program Manager will:
- a. Ensure NAVMC 11403, Lockout/Tagout Checklist, is used in the preparation of standing operating procedures (SOP) for units/shops (figure 10-1).
- b. Serve as point of contact for contractors concerning questions related to reference (g). Verify that information concerning this program is published in pre-construction notes from the Head, Public Works Branch, G-5 to each contractor.

3. Commanders/Activity Heads

a. Ensure supervisors under your cognizance report to LO/TO

training by the Safety Division within 90 days of appointment to a supervisory position.

- b. Ensure a LO/TO procedures are written for each shop or work area where machinery/equipment is maintained by authorized personnel in that shop.
- c. Provide funding for required locks, tags, and applicable standards for supervisor's use.
- d. Direct the development of a training program for appropriate shop supervisors.

4. Supervisors

- a. The workplace supervisor shall ensure energy control procedures are developed and maintained for all systems and equipment under their cognizance. NAVMC 11403 shall be used for this purpose. These written procedures shall include:
- (1) Specific steps for shutting down and securing equipment or machinery.
- (2) Specific steps for applying and removing lockout or tagout devices.
- (3) Specific requirements for testing equipment or machinery to verify the effectiveness of lockout or tagout devices.
- (4) Specific steps for re-energizing equipment or machinery.
 - (5) Means to enforce compliance.
- b. The written procedures shall be maintained with policy guidelines for your shop or branch. These procedures are subject to inspection by the Safety Division during annual ground safety inspections or any other inspections.
- c. Ensure LO/TO SOP is available to all authorized and affected personnel during all work shifts.
- d. Ensure that each worker reads and understands the SOP for their shop.

- e. Supervisors need not maintain the required LO/TO written procedure when all of the following elements exist:
- (1) Machine/Equipment has no potential for stored or residual energy or re-accumulation of energy.
- (2) Machine/Equipment has a single energy source which can be readily identified and isolated.
- (3) Isolation and locking out will completely de-energize and deactivate the machine/equipment.
- (4) Machine/Equipment is isolated from energy source and locked out during maintenance.
- (5) Single lockout device will achieve locked-out condition.
- (6) Lockout device is under exclusive control of the authorized worker performing the maintenance.
 - (7) Maintenance does not create hazards for other workers.
- (8) Supervisor, in utilizing this exception, has had no accidents involving the unexpected activation of the machine/equipment during maintenance.
- 5. <u>All Personnel</u>. All military and civilian personnel are responsible for knowing, understanding, observing, and adhering to established LO/TO SOP regardless of whose shop installed the lock and/or tag.
- 6. <u>Head, Human Resources & Organizational Management-Quantico Office (HROM-Q)</u>. Provide a monthly list of newly hired civilian personnel to the Director, Safety Division.
- 7. Head, Public Works Branch, G-4 and Director, Regional Contracting Office Northeast. Ensure contractors have a written SOP, as referenced in paragraph 10001.3b of this manual, for all machinery/equipment they operate and/or maintain aboard MCBQ. Contractors are responsible for informing MCBQ workplace supervisors of the LO/TO procedures that will be utilized, prior to performing the work requiring the procedures.

10003. LOCKOUT/TAGOUT DEVICES

1. Lockout Devices

- a. Combination locks shall not be used for lockout. No two lockout devices (locks) shall have the same key. No more than two keys shall exist for any lock. The authorized employee shall maintain one key and the supervisor shall maintain the other in a location readily accessible in the event of an emergency.
- b. If a piece of machinery or equipment is capable of being locked out, the supervisor's energy control program shall utilize lockout.
- c. Ensure that whenever replacement or major repair, renovation or modification of a machine or equipment is performed, and whenever new machine/equipment are installed, they shall be designed to accept a lockout device.
- d. Padlocks shall be utilized as the primary lockout device. Padlocks shall be singularly identified (not used for any other purpose).
 - e. Lockout devices shall meet the following requirements:
- (1) <u>Durable</u>. Shall be capable of withstanding the environment to which exposed.
- (2) <u>Standardized</u>. Shall be standardized within the facility in at least one of the following: color, shape, size, or format.
- (3) <u>Substantial</u>. Strong enough to prevent inadvertent removal without use of excessive force.
- (4) <u>Identifiable</u>. Bears the name, shop/code, and telephone number of the person who applied the lock, and the date the lock was applied.

2. Tagout Devices

- a. Tagout devices shall only be used when equipment or machinery cannot be locked out.
- b. Tagout devices must be attached at the same point at which a lock would have been attached or as close as safety possible to the point, and shall be affixed in such a manner that will clearly hold the energy isolating devices in a "safe" or "off" position.

- c. Tags are not to be removed without authorization of the person who applied it, and is never to be bypassed, ignored, or otherwise defeated.
- d. Tags must be legible and understandable by all authorized and affected employees and all other employees whose work operations are in the area.
- e. Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered.
- f. Tags will bear the name, shop/code, and telephone number of the person who applied it, and the date it was applied.

10004. LOCKOUT/TAGUT PROCEDURES

- 1. <u>Preparation for Shutdown</u>. Lockout/Tagout requires employees to follow a specific set of steps when servicing or maintaining equipment:
- a. <u>Notification</u>. Notify all affected employees that servicing, maintenance and shutdown in preparation for lockout/tagout is about to occur.
- b. <u>Prepare for Shutdown</u>. Know the type and magnitude of energy, the hazards of the energy to be controlled, and the means to control the energy. Review the workplace written energy control procedures that describe the specific steps for shutdown of the equipment.
- c. Shutdown. Turn off the equipment as directed by the workplace energy control procedures.
- d. <u>Locate and Isolate</u>. Find and isolate every form of energy the equipment uses. This includes releasing stored energy (such as in springs, hydraulic systems, or air pressure), pulling fuses, throwing disconnects and capping any secondary sources of energy.
- e. Apply Lockout or Tagout Devices. The authorized employee shall apply locks or tags to all energy-isolating equipment, valves and switches. Anything that might restore the flow of energy to the work area must be locked out. If equipment cannot be locked, place tags as close as possible to the energy-isolating device.

f. <u>Verification/Test</u>. The authorized employee shall verify that every energy source is shut down, blocked off, controlled, and locked or tagged out. Test the circuits and electrical parts of the equipment to be sure they are de-energized. Verify the equipment does not operate when the operating controls are turned "on." After verifying the equipment will not operate, return all operating controls to the "off" position. Perform necessary service or maintenance.

CAUTION: Sometimes energy is needed to test or position equipment during maintenance or repair. If so, follow all the lockout removal steps before energy is turned on. Follow all lockout steps to turn off the power and protect employees before going back to work. If there are questions, ask the workplace supervisor.

2. Release from Lockout/Tagout

- a. Restore the Work Area. Remove all tools, double-check all equipment components, replace all safety features (such as machine guards), and close access panels.
- b. $\underline{\text{Notify Personnel}}$. Notify all employees that lockout/tagout devices are being removed. Ensure employees are a safe distance from the equipment.
- c. Remove Lockout/Tagout Devices. The authorized employee who placed each device must be the one to remove it. If that person is not present, the device may be removed under the direction of the workplace supervisor, provided that specific workplace procedures and training for such removal have been developed, documented and incorporated into the Supervisor's Energy Control Program.
- d. <u>Restart Equipment</u>. Restart equipment following normal startup procedures.
- 3. <u>Group Lockout/Tagout</u>. If more than one authorized employee is required to lock out a piece of equipment, each employee shall place a personal lock and tag on a group lockout device when he/she begins work, and shall remove the lock and tag when he/she stops working on the machine/equipment.
- 4. <u>Shift Changes</u>. Supervisors shall ensure the continuity of lockout/tagout protection during shift or personnel changes. Each

employee shall be responsible for removing his/her own lock and tag at the completion of a shift.

10005. TRAINING

- 1. Supervisors shall ensure all workers who routinely work around potentially hazardous energy receive appropriate training. Supervisors are responsible for presenting LO/TO training to their personnel within 1 month of employment or duty assignment.
- 2. Basic awareness level training shall be taken by all employees. The workplace supervisor shall provide workplace-specific training for authorized and affected employees to ensure they understand the purpose and function of the energy control program. The supervisor shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and date(s) of training. The training shall include the following:
- a. Authorized employees shall receive workplace-specific training in the types of energy that must be controlled in each piece of equipment in their workplace. In addition, they must receive training on how to lockout or tagout each energy source associated with the equipment, and how to notify affected employees. The supervisor shall provide retraining whenever there is a change in job assignment, a change in equipment or processes that present a new hazard, or when there is a change in the workplace energy control procedures.
- b. Affected employees must be trained in why lockout/tagout is important, how the procedures work, and the importance of not attempting to repair or service equipment without going through the proper procedures for lockout/tagout. The supervisor shall provide retraining whenever there is a change in job assignment, a change in equipment or processes that present a new hazard, or when there is a change in the workplace energy control procedures.
- c. All other employees need to be trained to be familiar with lockout/tagout procedures, and know the importance of not trying to restart locked or tagged equipment.
- d. Additional retraining shall also be conducted when a periodic inspection reveals, or whenever a supervisor has reason to believe, that there are inadequacies in the employee's knowledge or use of the workplace energy control procedures.

3. Supervisors are required to keep and maintain a safety LO/TO turnover file. The file will thoroughly list all safety training provided for that shop/unit by their supervisor. Training literature provided by the Safety Division will also be maintained by the supervisors.

10006. PERIODIC EVALUATION

- 1. Supervisors shall appoint a worker(s) to conduct an annual inspection on every LO/TO procedure for all equipment and machinery. The inspection shall be conducted by an authorized worker other than the one(s) utilizing the energy control procedure being inspected.
- 2. Supervisors shall certify that annual inspections have been performed. The certification shall be maintained on file by the supervisor subject to inspection by the Safety Division and other inspectors and shall include the following:
- a. Identity of machine or equipment on which the LO/TO procedure was utilized.
 - b. Date of the inspection.
 - c. Workers included in inspection.
 - d. Person performing the inspection.

10007. CONTRACTORS AND OTHER DEPARTMENT OF DEFENSE PERSONNEL

- 1. Contractors performing service or maintenance on Marine Corps equipment shall comply with references (g) and (v). The Facilities Engineering and Acquisition Department or other responsible contracting agent shall ensure all outside contractors are informed of the elements of this program and obtain information regarding the contractor's lockout/tagout program. The contract shall require the contractor to inform supervisory personnel in the affected work site of the contractor's lockout/tagout program.
- 2. Personnel from other Department of Defense activities performing service or maintenance on Marine Corps machinery or equipment shall comply with respective activity's lockout/tagout program. These instructions must meet requirements of this order and reference (g).

The responsible management officials of the outside activity and the affected work site shall inform each other of their respective lockout/tagout programs.

3. Commanders will ensure their personnel understand and comply with restrictions and prohibitions of outside activity's lockout/tagout program.

10008. DEFINITIONS

- 1. Affected Employee. An employee whose job requires him/her to operate or use machines or equipment on which service or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area where such service or maintenance is being performed.
- 2. <u>Authorized Employee</u>. A person who locks out or tags out machines or equipment in order to perform service or maintenance on that machine or equipment.
- 3. <u>Energized</u>. Connected to an energy source or containing residual or stored energy.
- 4. <u>Energy Isolating Device</u>. A mechanical device that physically prevents the transmission or release of energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.
- 5. <u>Energy Source</u>. Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
- 6. <u>Hot Tap</u>. A procedure that involves welding on a piece of equipment under pressure, in order to install connections or accessories. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, and steam.
- 7. <u>Lockout</u>. The placement of a lock on an energy-isolating device, in accordance with an established procedure, to ensure the equipment being serviced cannot be operated until the lock is removed.
- 8. <u>Lockout Device</u>. A device that utilizes a lock and key to hold an energy-isolating device in the off, or safe, position to prevent a machine or piece of equipment from being operated.

- 9. <u>Service and/or Maintenance</u>. Workplace activities such as constructing, installing, setting up, adjusting, lubricating, cleaning, unjamming, inspecting, modifying and maintaining or servicing machines or equipment.
- 10. <u>Tagout</u>. The placement of a tag on an energy-isolating device, in accordance with an established procedure, to ensure the equipment being serviced cannot be operated until the tag is removed.
- 11. <u>Tagout Device</u>. A prominent warning device, such as a tag and a means of attachment, to indicate the machine or piece of equipment is being serviced or maintained and may not be operated until the tag is removed.

Figure 10-1.—NAVMC 11403, MCBQ Lockout/Tagout Procedures Checklist.

CHAPTER 11 LAWN MOWING/TRIMMING OPERATOR SAFETY

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CHAPTER 11

LAWN MOWING/TRIMMING OPERATOR SAFETY

- 11000. <u>BACKGROUND</u>. Every year mishaps with lawn maintenance equipment cause serious injuries. These mishaps are avoidable when standing operating procedures (SOP) are written, read, and understood by all personnel.
- 11001. <u>PURPOSE</u>. To establish policy and set guidelines for lawn mowing/trimming, edging and leaf blower use, operator training, personal protective equipment (PPE) needs and other safety requirements. Reference (g), American National Standards Institute (ANSI), and the Consumer Product Safety Commission (CPSC) requirements have been adopted by the Marine Corps.
- 11002. ACTION. All personnel assigned to operate equipment, as part of their working duties, will complete documented training in safe operating practices, sponsored by the Facilities Maintenance Officer or appropriate battalion safety officers. Documentation of training will be maintained by the supervisor of the section conducting training. Instruction will include operational skills and knowledge of the following general safety rules, which apply to all lawn maintenance operations:
- 1. Operators must be familiar with equipment controls and safety devices. All guards will be installed and utilized on lawn equipment. Equipment will not be used if guards are deformed or missing.
- 2. Ensure the area is clear of all debris, personnel and pets before cutting.
- 3. Wear appropriate eye protection, long pants, safety shoes, and hearing protection.
- 4. Audio headphones will not be worn.
- 5. Appropriate administrative action may be taken against operators and supervisors for failure to use PPE.
- 6. Check for equipment defects. Start the machine on firm, clear, level ground with feet and hands away from blades or other moving parts.

- 7. Arrange grass cutting so that the discharge side is never aimed toward other persons. No power mower will be operated within 10 feet of the rear of another operator. Keep children and pets away.
- 8. Never leave unattended engines running. Do not tamper with automatic shut off controls on any lawn equipment.
- 9. Stop the engine and disconnect the spark plug wire before cleaning, or working on the underside of the mower. A hot engine can start when the blade is turned if this is not done.
- 10. Never add fuel while the engine is running. After stopping the engine, allow at least 5 minutes to cool before refueling. Do not smoke while refueling and always refuel equipment outdoors where gasoline vapors can escape. Use only containers approved by the Underwriters Laboratory for gas storage.
- 11. Report equipment failure to the supervisor. Repairs should not be attempted by the operator.

11003. SPECIFIC REQUIREMENTS FOR PUSH MOWERS

- 1. Never push a mower up or down a slope. The safest technique is to mow across the slope. Hills or banks will not be mowed or trimmed when soggy or slippery.
- 2. Stop the engine before crossing gravel driveways, walks, or dirt roads to prevent projectile hazards.
- 3. Do not lift or tip the mower while it is running.
- 4. Notification of failure to use all required PPE during these operations will result in the immediate securing of the operation until appropriate PPE is used, as well as supervisory notification.

11004. SPECIFIC REQUIREMENTS FOR RIDING MOWERS

- 1. Personnel operating riding mowers, in a duty status, must possess a valid OF-346 to operate this type of equipment per references (qq) and (rr).
- 2. Mowers will not be operated on hills or banks which exceed the safe operating range of the equipments operational manual or as determined by the supervisor.

- 3. Operate riding mowers up and down slopes instead of sideways. Riding mowers will not be operated on soggy or slippery hills and banks.
- 4. Disengage the mower blade before crossing gravel driveways, walks, and dirt roads. For riding mowers that may not have the auto disengage capability, the mower's engine must be stopped before crossing gravel driveways, walks, or dirt roads.
- 5. Do not operate mowers without guards.
- 6. Keep hands, feet, and clothing away from drive chains and other moving parts.
- 7. Stop the engine when not in use.
- 8. Disengage all blades and drive clutches before starting the engine.
- 9. Operate mowers in a single file. Wear reflective vests or utilize reflective signs on the mower when working near active roadways.
- 10. Tractors not equipped with roll over protection systems are not required to have safety belts installed. Operators of tractors equipped with ROPS are required to use safety belts.

11005. RESPONSIBILITIES

- 1. It is the responsibility of all mowing/trimming equipment operators and supervisors to comply with all safety rules.
- 2. Operators will be trained in the proper function of all equipment they operate and be provided with a copy of the appropriate SOPs on power lawn mowing, trimming, edging and leaf blowing operations. They are expected to read and understand the SOPs before operating any equipment. Written documentation of training for lawn mowing equipment operators will be maintained by the operator's supervisor.
- 3. Specifically, supervisors of lawn mowing/trimming operations will ensure lawn mowing equipment is marked with safety labels and maintained per applicable regulations and manufacturer guidelines.

CHAPTER 12

RAILROAD RIGHT-OF-WAY SAFETY

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CHAPTER 12

RAILROAD RIGHT-OF-WAY SAFETY

12000. POLICY. All personnel must be made aware of the extreme danger involved in trespassing onto the CSX (Old R,F, & P) Railroad right-of-way.

12001. <u>BACKGROUND</u>. In the past, military and civilian personnel have been struck, injured, or even killed by passing trains while traversing portions of the railroad right-of-way. There are gates and warning signals at road crossings and there are warning signs along the railroad right-of-way, intended to isolate the railroad from trespass by Marine Corps Base, Quantico (MCBQ) personnel. Railroading is heavy industry. Trains regularly pass through the MCBQ at speeds in excess of 55 miles per hour. This speed requires a great distance for trains to come to a complete stop. That means danger is present for MCBQ personnel who choose to cross at unmarked crossings.

12002. INFORMATION

- 1. The area along the CSX Railroad tracks which passes through the boarders of the MCBQ is the private property of the CSX-T Corporation. MCBQ personnel, military or civilian, who trespass onto the right-of-way are subject to prosecution by the appropriate military or civilian authorities.
- 2. Normal passage of the at-grade, underpass or overpass crossings (Potomac Avenue, Martin Street, Henderson Road, Range Road, Officer Candidates School Pedestrian overpass, and Fleming Street) are not considered trespassing.
- 3. Pedestrian or vehicle use of at-grade crossings while the bells are sounding, signal lights are flashing, and/or barricade gates are down, is a violation of federal law and an invitation to disaster.
- 4. Jogging, cycling, organized physical training, or troop maneuvers along the railroad right-of-way, is prohibited.
- 5. Walking across or fishing off of either of the railroad bridges, located over Quantico Creek or Chopawamsic Creek, is forbidden.

6. Placing objects upon the tracks, tampering with rail turnouts (commonly called switches), tampering or damaging train signal devices, defeating locking mechanisms on these devices, or otherwise damaging railroad equipment is a crime carrying the full weight of criminal and civil prosecution.

12003. RESPONSIBILITIES

- 1. Supervisors will convey to their personnel, military and civilian, the extreme danger and legal ramifications incident to trespassing onto the railroad right-of-way.
- 2. Military sponsors residing aboard MCBQ, have the responsibility to educate their family members regarding these dangers.
- 3. Anyone seeing any safety hazard along the CSX right-of-way that would endanger train movements, MCBQ personnel, or property should contact Safety Division immediately.

CHAPTER 13

LASER SAFETY

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CHAPTER 13

LASER SAFETY

- 13000. $\underline{\text{PURPOSE}}$. To prescribe policy and guidance to identify and control laser radiation hazards. References (x), (tt), and (ss) establish guidelines for Marine Corps Laser Safety Programs.
- 13001. <u>SCOPE</u>. Actions required by this chapter apply to the design, use, and disposal of all equipment and systems capable of producing laser radiation including laser fiber optics, with the exception of medical and industrial lasers.
- 13002. <u>BACKGROUND</u>. The increasing prevalence of lasers in the military training environment has heightened the probability of hazardous exposure from laser radiation. The Bureau of Medicine and Surgery (BUMED) is the lead agency within Department of the Navy (DON) and the Marine Corps for laser safety. Laser safety is a special concern and is a separate and unique program from radiation safety.

13003. RESPONSIBILITIES

- 1. <u>Commander, Marine Corps Base, Quantico (Comdr MCBQ)</u>. The Comdr MCBQ will task the Director, Safety Division, to designate members of the Safety Division as the Primary and alternate Marine Corps Base, Quantico (MCBQ) TLSO. They will be the points of contact (POC) for laser safety matters.
- 2. Technical Laser Safety Officer (TLSO). The TLSO will possess technical expertise, practical experience, and authority to approve or disapprove the use of lasers. The TLSO will successfully complete an Authorized Lead Agency approved Technical Laser Safety Officer's (TLSO) course and fulfill the requirements outlined in enclosure (6) of reference (x) and be certified to qualify others as Administrative Laser Safety Officers. Equivalent training may be approved by BUMED. Responsibilities of the TLSO include:
 - a. Establish and manage an installation laser safety program.

- b. Maintain an inventory of Class 3b, 4 and military exempt lasers and their locations. Forward an annual inventory report to BUMED (212) on 15 September.
- c. Maintain a list of personnel trained and certified to engage in laser operations and their specific limitations.
- d. Investigating laser exposure accidents and recommend corrective actions. Submit a Laser Incident Report for all Class 3b and 4 inadvertent personnel exposures.
 - e. Establish and promote MCBQ laser safety regulations.
- f. Coordinate with activity TLSO/Alternate Laser Safety Officer (ALSO) to ensure proper operational input/prospective, accident investigations, corrective actions, regulations, and reports related to laser safety, operations, and training.
 - g. Perform annual range safety compliance inspections.
- 3. Tenant Activities. Tenant activities utilizing lasers will appoint an individual Laser Systems Safety Officer (LSSO) for the organization. This Laser Safety Officer (LSO) will possess sufficient technical experience to establish SOPs to be submitted for approval by the MCBQ LSO. The LSO may be an officer, Staff noncommissioned officer (SNCO), noncommissioned officer (NCO), or civilian who will be designated by name with direct access to the commander. The LSO must successfully complete an TLSO/ALSO Course or equivalent training as approved by BUMED. The LSO will have an understanding of lasers, laser hazards, and the necessary safety procedures required for safe operation of laser systems. This LSO will be appointed by the activity head, in writing, with a copy to the MCBQ TLSO and the Director, Safety Division (B 51).

4. Assistant Chief of Staff (AC/S), G-3

- a. AC/S, G-3 will appoint, in writing, a TLSO or a Range Laser Safety Specialist (RLSS), preferably an individual in the Training Branch, G-3 as the G-3 LSO. A copy of the appointment letter will be forwarded to the MCBQ TLSO and the Director, Safety Division (B 51).
- b. The LSO, G-3 is responsible for the conduct of laser range operations per reference (x). The LSO, G-3 will maintain a log of laser range firings for a minimum of 3 years.

- 5. Systems Commands and Research and Development Activities. These activities utilizing lasers or laser systems aboard MCBQ will:
- a. Ensure requirements for operation, maintenance, and training for laser hazard control are met as outlined in enclosure (7) of reference (x).
- b. Establish a laser safety review system, coordinate the Laser Safety Inspection Program, publish laser standing operating procedure (SOP), and present to the MCBQ TLSO for approval.
- c. Provide the MCBQ TLSO a list of Class 3b, 4 and military exempt lasers and their locations, and a list of personnel trained and certified to engage in laser operations (and their specific functional limitations).
- d. Establish and maintain laser firing record keeping procedures. Maintain training records and ensure required personnel are included in a medical surveillance program.
- e. Submit documentation concerning each military exempt laser product to the Laser Safety Review Board Space and Naval Warfare (SPAWAR) through the MCBQ LSO, with copy to the Director, Safety Division per reference (uu). Military exempt lasers which have not been reviewed and approved safe for use will not be operated.
- f. Ensure lasers and laser systems will be repaired by trained authorized personnel only. Class I and II lasers purchased from a manufacturer shall not be repaired by command personnel, but will be returned to the manufacturer or manufacturer's representative. No attempt will be made by unauthorized personnel to open the protective housing of Class I and II lasers.
- g. Report excess lasers to the MCBQ TLSO (B 51). Transfer excess lasers only after notification and approval of BUMED (212).
- 6. <u>Health Care Advisor</u>, <u>Naval Health Clinic (Occupational Health/Preventive Medicine Department)</u>. Establish and maintain a medical surveillance program per reference (vv).

13004. REPORTS

1. Mishaps and incidents will be investigated and reported per reference (a). The MCBQ LSO and the Director, Safety Division will

be notified by telephone, within 24 hours of laser mishaps and incidents.

- 2. Annual inventories will be completed by activities and submitted to the MCBQ TLSO, and the Director, Safety Division by 15 August each year for Class 3b, 4, and military exempt lasers. Figure 13-1 is a sample format. The MCBQ TLSO will submit an annual command inventory to BUMED (212) by 15 September with a copy to Headquarters, Marine Corps (Safety Division).
- 3. Laser transfer/disposal requests will be made to BUMED by the MCBQ TLSO, with a copy to the Director, Safety Division (B 51). Figure 13-2 is a sample format.

5100

(Originator Code)

(Date) Commanding Officer, (Unit Name) From: MCBQ Laser Systems Safety Officer (B 51) To: Subj: CLASS IIIB, AND IV EXEMPT LASER INVENTORY REPORT FOR FY-Ref: (a) MCO 5104.1B 1. Per the reference, the following annual report is submitted for FYa. Laser Type: _____ b. Manufacturer: _____ Contract Number: c. d. Number of Lasers: _____ National Stock Number: _____ e. Serial Numbers: f. Exempt Qualification (check applicable boxes) q. (1) Combat Training: (2) Classified: _____ 2. Status a. Number of Lasers: In Use ____ In Storage ____ Awaiting Disposition ____ Transferred within Department of Defense (DoD) to _____ Date _____ Approval Date _____

Figure 13-1.--Laser Annual Inventory Report Format.

c. Disposed o	outside of D	oD to	Date
Approval			
	SIGN	ATURE	
Copy to:			
Director, Safety D	ivision (B	51)	
Headquarters, Mari	ne Corps (S	afety Division)	

Figure 13-1.--Laser Annual Inventory Report Format--Continued.

5100

(Originator Code) (Date) Commanding Officer, (Unit) From: Commander, Bureau of Medicine and Surgery (212) To: Subj: REQUEST FOR TRANSFER/DISPOSAL OF EXEMPT LASER Ref: (a) 21 CFR, part 1040 (1977) 1. It is requested that approval be granted to transfer/dispose (circle one) of the following exempt laser(s): Laser Type: _____ Part Number: _____ Serial No.(s): ______ National Stock Number (If assigned): _______ Exemption qualification: Combat: _____ Training: ____ Classified: _____ To be transferred to:

For Disposal:

Describe method of demilitarization and/or modification, which is being accomplished to bring the laser in compliance with the reference prior to disposal outside of Department of Defense (DoD).

*Description should include laser medium and/or emitted wave lengths, maximum output of laser radiation, the pulse duration (when appropriate), and laser class.

To be donated or sold:

SIGNATURE

Copy to:

Director, Safety Division (B 51)

Chief, Fire Protection/Prevention Branch (B 279),

Public Safety Division

Figure 13-2.--Laser Transfer/Disposal Request Format.

CHAPTER 14 INDUSTRIAL HYGIENE/OCCUPATIONAL HEALTH

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CHAPTER 14

INDUSTRIAL HYGIENE/OCCUPATIONAL HEALTH

- 14000. <u>PURPOSE</u>. To provide additional guidance for and in support of the MCBQ Occupational Health (OH) Program.
- 14001. POLICY. The Naval Health Clinic (NHCL) shall provide OH services to MCBQ and all tenant activities per reference (ww), and the current Inter-service Support Agreement.
- 14002. <u>BACKGROUND</u>. OH is involved primarily in the prevention of unhealthful conditions that may result from long and short term/acute exposure to conditions in the work environment. The OH Program contains two elements, Industrial Hygiene (IH) and Occupational Medicine (OM).
- 1. IH comprises that portion of the OH Program involved with the anticipation, recognition, evaluation, and control of worker exposure to chemical, physical (i.e., noise, temperature extremes, etc.), and biological agents.
- 2. OM comprises medical surveillance that ensures a worker's fitness to perform assigned duties or that identifies the signs of damage resulting from workplace exposure or injuries.

14003. ACTION

1. Commanders/Activity Heads

- a. Implement the OH Program described in this manual and applicable regulations.
- b. Monitor the scheduling and completion of medical surveillance/job certification examinations of all personnel.
- c. Inform OH/IH Department, NHCL whenever operations change that could potentially increase worker exposure.
- d. Ensure personnel are scheduled for required training and monitor the completion of exposure related training for their staff.

- e. Forward to individual workers the results of personal air and noise samplings mailed from NHCL.
- f. Ensure that notice to contractors is provided whenever asbestos or lead is known to be present in affected buildings.
- g. In order to limit worker exposure, comply with recommendations found in the IH survey, including the following when feasible:
- (1) Replacement of hazardous materials with less hazardous materials.
 - (2) Implementation and maintenance of engineering controls.
- (3) Modification of work or administrative practices affecting workforce safety and health.
- (4) The supply of appropriate personal protective equipment (PPE) to workers needing it, and supporting its use with appropriate training and SOP.
- h. Ensure laboratory operations are covered by a Chemical Hygiene Plan similar to the one at appendix B.
- i. Treatment of on-the-job injuries/illnesses will be as follows:
- (1) Ensure that their personnel report occupationally related injuries or illness due to occupational exposure as soon as possible to their supervisors.
- (2) For all emergency illnesses or injuries call 911. Ensure that supervisors of injured or occupationally ill civil service workers complete OPNAV Form 5100/9, Dispensary Permit. The dispensary permit should accompany the injured worker to the NHCL as soon as possible and always within 2 working days of the injury or illness. Civilians with occupationally related illnesses or injuries should report to the OM Branch and active duty injuries to the Military Medicine Department (Sick Call). Form CA-1, Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation (and non-appropriated fund personnel complete the LS-1) shall be completed by the injured person and their supervisor for each injury or illness for documentation of possible worker's compensation claim.

2. Commanding Officer, Naval Health Clinic (CO NHCL)

- a. Perform regular comprehensive IH surveys of MCBQ and tenant activities, assessing exposure and evaluating program administration.
- (1) Survey sites with recognized OH hazards annually; survey all other sites triennially.
- (2) Provide survey reports to the appropriate survey site with copies to Safety Division and the Command Inspector General.
- b. Perform investigative site visits required to make any additional IH assessments.
- c. Upon request, review plans for new and existing facilities to ensure compliance with OH standards.
- d. Perform IH related air and bulk sampling relative to the exposure of government to all stressors.
- e. Upon request provide exposure information to workers and their authorized representatives.
- f. Provide other IH technical assistance as the branch determines to be necessary.
 - q. Provide OH related training as required.
 - h. Treatment of on-the-job injuries:
- (1) Perform initial assessment and treatment of nonemergency, civilian worker injuries and illnesses arriving at the OM Branch within 2 working days of the injury.
- (2) Perform initial assessment and treatment of active duty injuries in the Military Medicine Department (Sick Call).
- 3. <u>Director</u>, <u>Safety Division</u>. In conjunction with the CO NHCL, the Director, <u>Safety Division</u> will provide educational and informational materials on subjects/programs covered in this chapter.
- 4. Occupational Health/Industrial Hygiene (OH/IH) Department, Naval Health Clinic. The OH/IH Department will monitor work place implementation of IH survey recommendations.

5. The Assistant Chief of Staff (AC/S), G-5. The AC/S, G-5 will:

- a. Coordinate with the OH/IH Department to ensure that engineering controls are designed per applicable standards, and functions so as to limit worker exposure to levels established in references.
- b. Ensure contracts for asbestos and lead abatement are reviewed by Safety Division and the IH Department, NHCL before execution.
- c. Ensure the Head, Public Works Branch, G-5 monitors contracts/contractors for compliance with Occupational Safety and Health Standards.
- d. Ensure that required permits are obtained from the state of Virginia prior to initiating in-house asbestos abatement. Coordinate all asbestos issues/projects with the Safety Division.

6. Individual Workers. Individual workers will:

- a. Use engineering controls (i.e., ventilation) when available in the workplace as recommended in activity IH survey reports.
- b. Understand and follow recommended safety and health standards.
- c. Wear personal respiratory protection, hearing protection, impermeable gloves and other PPE as recommended by activity IH survey reports.
- d. Report to the NHCL for audiometric, medical surveillance, job certification, or other examinations scheduled.
 - e. Report for OH training as directed by the supervisor.
- f. Report on-the-job injuries and cases of suspected illness due to occupational exposure as soon as possible to supervisors, and report to NHCL for evaluation and treatment.

14004. PROGRAM ELEMENTS

1. Noise and Hearing Conservation Program (HCP). One of the most common OH illnesses is noise-induced hearing loss. The louder the noise, the longer the noise, and the more years of exposure, the

greater the likelihood of hearing loss. Fortunately, hearing loss is easily preventable by regular and proper use of appropriate hearing protection. For personnel routinely exposed to high noise levels, regular audiometric examination is required in order to detect the early signs of hearing loss. Additional requirements related to this program are found in reference (xx).

- a. An assessment of personal noise exposure levels will be madeas part of periodic IH surveys.
- b. Areas and equipment producing noise in excess of levels allowed in reference (yy) will be labeled as "noise hazardous" with $(8 \times 10 \frac{1}{2})$ NAVMED Form 6260, Hazardous Noise Warning Label, (NSN 0105-LF-206-2605) or $(1" \times \frac{1}{2}")$ NAVMED Form 6260/A Hazardous Noise Warning Label, (NSN 0105-LF-212-6020).
- c. All personnel working in noise hazardous areas or with noise hazardous equipment, even for short periods, will wear approved hearing protection.
- (1) It is critical that hearing protection be adequate with respect to noise and that the protection be maintained. Hearing protection should be kept clean. Damaged equipment is useless and must be replaced.
- (2) All hearing protection wears out with normal use and must be replaced regularly. Foam plugs should be replaced after 8 to 16 hours of use and muffs after a year of use, or when visibly damaged or defective.
- (3) Hearing protection is to be provided and funded by the command or activity of personnel requiring it.
- d. Personnel routinely exposed to noise levels in excess of those allowed by reference (zz) will be included in the HCP and be required to receive baseline and annual audiometric examinations. Inclusion in the program will be based upon the most recent IH survey results and related sampling, as recommended in the survey reports. In order to ensure routine and efficient performance of examinations, activities should have their personnel report for examination during their birth month. Information regarding scheduling of audiometric examinations is available at the OH Department at NHCL, 703-784-1673.
- e. All personnel in the HCP are required to receive annual training. Training is being provided by the IH Branch, NHCL.

- 2. Respiratory Protection Program (RPP). Respiratory protection is to be worn by personnel potentially exposed to chemical and metal dust, mists, fumes, vapors, and gases, in excess of allowable levels, or when required by law or regulation. The RPP is administered by the Respiratory Protection Program Manager (RPPM), per reference (u).
- a. An assessment of potential exposure will be made as part of periodic IH surveys. Personnel judged during the course of the survey to be potentially exposed to chemical agents in excess of levels allowed in the currently applicable regulations are required to wear approved respiratory protection. Commanders/Activity heads of workplaces requiring respiratory protection will be notified by NHCL.
- b. Personnel in the RPP will receive an annual medical examination to certify their ability to safely wear the respiratory protection provided.
- c. Personnel in the RPP will receive annual (semiannual in the case of asbestos and lead) fit-testing and training in the use of the respirator.
- d. Personnel having beards or other facial hair that could interfere with the formation of a face-to-face piece seal will not be fit-tested and will not be permitted to wear tight-fitting respirators.
- e. Activities will provide and fund required respiratory protection for their workers required to wear it.
- f. Activity respirator use must be accompanied by the following:
- (1) Respirator cleaning and disinfection after use, and periodically as needed, must be part of a regular routine by a trained respiratory protection program monitor (RPPM).
- (2) Respirators must be stored in a convenient, clean, and sanitary place in accordance with respiratory protection program documents (29 CFR 1910.132 etc).
- (3) Respirators are to be inspected during cleaning, and worn or deteriorated parts replaced as necessary.
- (4) Implementation of an SOP governing the selection and use of respirators is required.

- 3. Asbestos Exposure Control. Inhalation of asbestos fibers over a period of years may lead to irreversible lung disease and death. Asbestos is found in many forms in buildings aboard Quantico. Unless disturbed in such a way as to allow fibers to become airborne, such as through sanding, grinding, cutting, and ripping out/tearing out the asbestos-containing material (ACM), exposure above permissible levels should not occur. Removal or disturbance of ACM is limited to trained personnel and shall be accomplished per applicable Federal, state, and local regulations. Safety Division, in cooperation with G-5, will provide guidance for asbestos abatement.
- a. Asbestos supervisors, planners, and contract asbestos personnel are responsible for knowing asbestos requirements relating to their work crews and personnel and must be certified by the State of Virginia Federal. The MCBQ Asbestos Program Manager (APM) can provide technical assistance at 703-784-2866.
- b. Results from personal sampling performed during operations aboard MCBQ shall be maintained by the APM.
- 4. <u>Lead Exposure Control</u>. Inhalation and ingestion of inorganic lead dust and fumes have been health hazards for at least 2,000 years and have been recognized as such in industrial applications since the late 1960's. Occupational and environmental controls during recent years have resulted in major reductions in lead exposure throughout the United States. However, lead exposure remains an area of concern for our work force.
- a. Operations aboard MCBQ in which personnel may be exposed to lead include the following:
- (1) Weapons firing, weapons cleaning, and range and trap cleaning.
- (2) Breaching training using lead-encased flex linear charge.
- (3) Performing hot work such as welding, cutting, brazing, and soldering on lead-containing or coated materials.
- (4) Application and removal of lead-containing paintings or coatings.
- b. Air sampling for lead or asbestos aboard MCBQ may be performed by the IH Department, NHCL.

- c. Personnel routinely overexposed to lead will receive medical surveillance examinations per references (g) or (v), whichever is applicable.
- d. Personnel potentially overexposed to lead will receive annual education and training, which will be provided by the IH Department, NHCL by contacting the IH Department at 703-784-1674/1675.
- e. Lead is also a hazard by ingestion. Personnel working around lead dust must always wash their hands before eating, drinking, smoking, or applying cosmetics, after lead-related duties to prevent accidental ingestion of the chemical.
- 5. <u>Heat Stress Exposure Control</u>. Heat associated injury and illness results primarily from the combination of environmental temperature, humidity, exposure duration and solar contact (if outdoors), and the amount of heat generated by the body.
- a. The principal threat of heat injury is to military personnel during physical training or performing strenuous exercise. Details of the MCBQ program relating to these activities are described in reference (aaa).
- b. In general, office environmental conditions, even without air conditioning, will not create health problems for normal, healthy personnel performing sedentary office jobs. For personnel working in industrial or office settings, physiological heat exposure limits will be used to determine what limitations, if any, must be put on worker exposure to heat.
- c. When situations not covered in that order are encountered, the IH Department, NHCL should be contacted. On the basis of conditions described or site visit, recommendations to reduce threat of heat injury will be made. Supervisors may exercise discretion in releasing employees if temperatures exceed recognized comfort levels.
- 6. <u>Biohazards Exposure Control</u>. The opportunity for exposure to recognized biohazards is relatively limited aboard MCBQ. The following are examples of common biohazards:
- a. <u>Bloodborne Pathogens</u>. The Hepatitis B Virus and Human Immuno-Deficiency Virus found in blood and certain other body fluids pose a potential hazard to all personnel.

- (1) It is anticipated that certain personnel may come in contact with blood or other potentially infectious fluid in the course of their assigned duties. These people are required to receive immunization and training within the scope of the MCBQ Exposure Control Plan contained in appendix C.
- (2) In unusual situations, personnel aboard MCBQ could encounter blood or other contaminated material in the work-place. If this happens, the following precautions should be taken:
- (a) Blood or contaminated material should be assumed to be infectious and avoided.
- (b) If potential contact with material is necessary, personnel assigned to clean must exercise precautions as described in paragraph 14004.5 of the Heat Stress Exposure Control.
- (c) If contact was believed to have occurred, a medical evaluation per paragraph 14004.4 of the Lead Exposure Control should be obtained.
- b. Lyme Disease. The rickettsia that carries Lyme Disease is present in several varieties of ticks living in the areas around Quantico. Personnel working in forests or overgrown areas should inspect themselves for ticks. If ticks are discovered after attachment (i.e., with head buried in skin) during work, the worker is to immediately report to NHCL for medical evaluation. If ticks are discovered after the attachment, after duty hours, the worker should seek immediate medical attention and report the incident to the OH nurse at NHCL the following workday.
- 7. <u>Indoor Air Quality</u>. Requests for evaluation of Indoor Air Quality conditions are to be forwarded using the MCBQ Form 5100/11 (EF), IH Service Request Form (appendix D).

14005. INDUSTRIAL HYGIENE SERVICE REQUEST

- 1. Most IH activities are programmed on 1, 2, or 4 year cycles depending on conditions observed in workplaces.
- 2. If other site visits, surveys, or services are desired, activities should complete MCBQ Form 5100/11 (EF), IH Service Request Form (appendix D) to obtain it most efficiently.

CHAPTER 15

TRAFFIC SAFETY

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CHAPTER 15

TRAFFIC SAFETY

15000. PROGRAM. References (bbb), (ccc), and (ddd) direct the implementation of a MCBQ Traffic Safety Program. This program consists of programs and processes related to safe driving, pedestrians, licensing, drivers training, and other areas necessary to ensure a safer driving environment aboard Marine Corps Base, Quantico (MCBQ).

15001. BACKGROUND

- 1. Motor vehicle mishaps are the leading category of accidental death and injury to Marines. These mishaps impact on the individual, the unit/command, their families, and consequently the Marine Corps, costing millions of dollars every year. Traffic mishaps are preventable. Self-discipline, training, and enforcement are instrumental in preventing them.
- 2. The objective of this program is to improve driver attitudes, habits, skills, and behavior in order to reduce vehicle mishaps and the resultant injury, death, and property damage, according to guidance set forth in Department of Defense (DoD) and Marine Corps standards.
- 3. Vehicle operator errors, violations, and attitudes are principal contributors to vehicle mishaps. The Vehicle Driver's Education Program mandated by reference (e) provides a means to inform personnel of driving responsibilities.

15002. REQUIREMENTS

- 1. The Base Safe Drive Council and its Working Group are designed to resolve traffic safety issues related to reducing vehicle related mishaps. Details of the council and working group are in chapter 1 of this manual.
- 2. Driver's licensing and government motor vehicle training are addressed in reference (ddd).
- 3. Cell phone usage in vehicles aboard MCBQ will comply with the following:

a. Government Vehicles (GOV)

- (1) Operators of GOV may not operate a cell phone at any time while they are driving a GOV vehicle, at any time while the vehicle is moving or on roadways. Additionally, operators of GOVs may not operate a cell phone at any time while entering or while transiting military police (MP) checkpoints, force protection barrier systems, or while at any of the MCBQ entry gates. They may use a cell phone if at a complete stop and fully off the road (or parked) for emergency purposes or other safety purposes. Operators of GOVs may be cited for reckless driving if using a cell phone at MP checkpoints, force protection barrier systems, or at any of the entry gates to MCBQ.
- (2) Passengers, however, may operate a cell phone while riding in a GOV as long as they do not interfere with the safe operation of the vehicle.

b. Privately Owned Vehicles (POV)

- (1) Operators of POVs may not operate a cell phone at any time while on board MCBQ unless they are utilizing a hands-free device. Operators of POVs may not operate a cell phone at any time when entering or while transiting military police checkpoint, force protection barrier system zones, or while at any of the MCBQ entry gates. Operators of POVs may be cited for reckless driving if using a cell phone at MP checkpoints, force protection barrier systems, or at any of the entry gates to MCBQ.
- (2) Passengers, however, may operate a cell phone while riding in a POV as long as they do not interfere with the safe operation of the vehicle.
- 4. Bicyclists will ride with the flow of traffic when riding on MCBQ roads. Bicyclists will wear a reflective belt/vest at all times. This belt/vest must contain reflective material that is visible from the front and from the rear, and can be seen from a distance of 300 feet when illuminated by headlights. In addition, American National Standards Institute (ANSI) or Snell Memorial Foundation bicycle helmets shall be worn by all persons (including family members) riding bicycles on MCBQ, Quantico as required in reference (eee).
- 5. When jogging on roadways, joggers are required to wear reflective vest/belt at all times. Head phones shall not be worn while jogging or walking on MCBQ roadways or streets. All

pedestrians, whether running, jogging, or walking, shall be on the left shoulder of the roadway, facing traffic, at least 3 feet off the traveled roadway. Never run more than two abreast. Refer to reference (f) for information related to formation running/movement of troops in formation.

15003. TRAINING

- 1. <u>Driver Improvement Training</u>. All permanently assigned military personnel under the age of 26 will complete the 8-hour Driver Improvement Course (DIC) within 30 days of the day they report for duty to MCBQ. The following personnel are exempt:
- a. Officer students attending The Basic School (TBS). (TBS students will attend DIC prior to graduation.)
- b. Military personnel attending military occupational specialties (MOS) producing schools.
- c. Military personnel under the age of 26 who have a statement of completion on page 11 of their service record book SRB/officer qualification record OQR, or a certificate of class completion from another installation, or entry in the unit diary attesting to the date and location of DIC completion.
- 2. <u>Motorcycle Safety Training</u>. No person shall operate motorcycles, motor bikes, motor scooters, or mopeds aboard MCBQ before first completing the Motorcycle Safety Foundation Riders Course, as required by reference (e). Proof of completion of this course is required for the registration of any of the above equipment at Vehicle Registration Office.
- 3. Remedial Driver Training. This class is conducted to provide additional training to those individuals with traffic violations or as directed by their commanders. The Traffic Court Officer and/or commanders review each case of a moving violation and/or traffic mishap. Designated individuals will participate in a Remedial Driver Training Program when considered appropriate.
- 4. <u>Drivers Training</u>. All regularly scheduled driver training will be conducted by the Driver Licensing and Training Branch, Safety Division. This includes the DIC, the Motorcycle Safety Course, and the Remedial Driver Training Course. Special classes are conducted at the request of commanders. Send request to the Director, Safety Division (B 51).

15004. SCHEDULING

- 1. The DIC will be conducted twice monthly. Spaces in this class are requested, in advance, by letter.
- 2. The Motorcycle Safety Course is conducted monthly from April thru October to support personnel needs. Individuals will schedule their own attendance by memorandum to the Driver Training Branch at building (Bldg). 1001.
- 3. Remedial Driver Training is a course conducted on the last Saturday of each month. Spaces for this class will be assigned by the MCBQ Traffic Court Officer, or the individual's commander, and will be coordinated with the Driver Training Branch.
- 4. Family members and other licensed drivers who are required to attend these courses will schedule themselves by contacting the Driver Training Branch at 703-784-2120.

15005. RESPONSIBILITIES

1. Commanders/Activity Heads

- a. Ensure that SRBs/OQRs of personnel, are screened upon joining their activities, and that personnel are identified for attendance in the Drivers Training Courses of instruction per the provisions of this chapter.
- b. Ensure that unit/activity training officers identify and schedule personnel, requiring driver improvement training, to the Driver Training Branch at 703-784-2120.
- c. Ensure appropriate entries are entered into the individual's SRB/OQR upon successful completion of the designated course(s).
- d. Commanders/Activity heads are responsible for the proper assignment, supervision, safe operation of motor vehicle operators, and implementation of reference (e) or applicable.
- e. Ensure supervisors conduct and document Pre-Departure Safety Briefings for all Marines under 26 years of age prior to their departure to a permanent change of station, when traveling extended distances (beyond established out-of-bounds limits) on

leave or when the member is departing on extended liberty (more than 48 hours). Documentation of these briefings is to be maintained by the supervisor for 30 days. The briefings should cover appropriate mishap prevention information such as mode of travel, allowing sufficient time and rest, safe driving practices, etc.

- 2. <u>Director, Safety Division</u>. Provides management oversight for the safe driving program.
- 3. <u>Manager</u>, <u>Driver Training Branch</u>, <u>Safety Division</u>. The Chief Instructor, <u>Driver Training Branch will</u>:
- a. Maintain liaison with motor transport officers, organizational training officers/safety officers, and the Director, Safety Division in the area of safe driver licensing and training.
- b. Provide overall supervision, scheduling, conduct, and coordination of the Driver Training Program courses of instruction.
 - c. Prepare and issue certificates of completion.
 - d. Prepare and maintain class records and training statistics.
 - e. Submit personnel attendance reports as required.
- f. Maintain appropriate records and files for historical records.
- g. Perform as a member of the Safe Driving Council's Ad Hoc Committee.
 - h. Ensure monthly seatbelt checks are performed.
- 4. <u>Motor Vehicle Operators</u>. Motor vehicle operators will comply with the provisions of this Manual and appropriate regulations.
- 5. <u>Motorcycle Operators</u>. Motorcycle operators will ware the appropriate PPE as specified in reference (f) series.

CHAPTER 16

LEAD SAFETY

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CHAPTER 16

LEAD SAFETY

- 16000. <u>PURPOSE</u>. To establish the procedures and requirements for the Marine Corps Base, Quantico (MCBQ) Lead Safety Program.
- 16001. <u>SCOPE</u>. Provisions of this chapter apply to all lead operations conducted in or on MCBQ buildings, grounds, structures, and equipments.
- 16002. $\underline{\text{POLICY}}$. To reduce potential and actual lead exposures to levels as low as reasonably achievable.

16003. BACKGROUND

- 1. Lead has long been a recognized health hazard. Lead can damage the nervous system, kidneys, and reproductive systems. Chronic lead exposure can initially damage the blood forming organs. Higher levels can result in reproductive dysfunction in both men and women, and it can cause peripheral nerve and central nervous system changes. Lead inhibits heme synthesis and at high levels leads to anemia. Lead can pass through the placenta and lead levels in the mother's blood are comparable to concentrations of lead in the umbilical cord at birth. The fetus and newborn may be at least as susceptible to neurological damage as young children.
- 2. Buildings constructed before 1978 are likely to contain lead-based paint. MCBQ has a long history. Operations and areas aboard MCBQ in which personnel may be exposed to lead include the following:
- a. Weapons firing, weapons cleaning, and range and trap cleaning.
 - b. Breaching training using lead-encased flex linear charge.
- c. Performing hot work such as welding, cutting, brazing, and soldering on lead-containing or coated materials.
- d. Application and removal of lead-containing paint or coatings on buildings and structures, and operational equipment.

- e. Lead contaminated soil adjacent to buildings and structures.
 - f. Playground equipment coated with lead-containing paint.
- g. Passive exposure to lead dust from lead-containing paint in housing units and office spaces.
 - h. Use of lead containing paints and glazes in hobby shops.
 - i. Family hobbies and purchase of products containing lead.
 - j. Alterations to radiation shielding.

16004. RESPONSIBILITIES

1. Marine Corps Base, Quantico Lead Program Manager (LPM)

- a. The LPM will be appointed in writing by the Director, Safety Division, who will ensure the LPM receives appropriate training per reference (d).
- b. Refer to Industrial Hygiene (IH) any requests for evaluating operations involving exposure to lead.
- c. Working with Naval Health Clinic (NHCL) IH, ensure a personnel protective equipment (PPE) survey is completed per reference (ccc). Provide for required PPE training of personnel involved in lead operations. Purpose, selection, fit testing, use, and limitations of respirators will be included. Coordinate respirator training and fit testing with the Respirator Protection Program Manager.
- d. Notify IH of any personnel entering or working inside of lead controlled boundaries.
- e. Review, with other safety specialists, all contracts and work requests, for renovation and demolition, for lead abatement considerations.

2. Commanding Officer, Naval Health Clinic (CO NHCL)

a. Occupational Health (OH)

- (1) Conduct Lead Medical Surveillance Program per reference (d), chapter 16.
- (2) Notify IH and LPM of work centers where personnel have elevated blood levels.

b. Pediatric Clinic

- (1) Conduct Pediatric Screening examinations per the current Bureau of Medicine and Surgery (BUMED) Navy Pediatric Lead Exposure Prevention Program recommendations.
 - (2) Notify OH of children with elevated blood levels.

c. Industrial Hygiene (IH)

- (1) Evaluate work operations involving lead and conduct air sampling as required.
 - (2) Develop and recommend lead control boundaries.
- (3) In coordination with MCBQ LPM and work center supervisors, recommend required PPE.
- (4) Advise work center supervisors of personnel to be included in the medical surveillance program.
 - (5) Provide technical support and guidance to the LPM.
- (6) Provide training, with the MCBQ LSPM, to designate lead workers per reference (d), chapter 16. The MCBQ LPM will provide general Lead Awareness Training, with the IH, NHCL, to personnel who are potentially exposed to lead in their work environment.
- (7) Within 5 working days after receipt of a health hazard evaluation, notify each worker verbally of his/her overexposure. A formal written response should be sent to the worker within 30 days of receipt of the health hazard evaluation.
- (8) Review all contracts and work requests, for renovation and demolition, for lead abatement considerations.
- (9) Evaluate ventilation systems used to control personnel exposure to lead quarterly or as needed for any significant change in either the work process or equipment. Only annual evaluations are required where monitoring devices are installed and work center

personnel are instructed in their function and to contact the MCBQ LPM in case of malfunction.

(10) Notify the MCBQ LPM of work centers where personnel have elevated blood levels, detected by the Medical Surveillance and Pediatric Screening Programs.

3. Assistant Chief of Staff (AC/S), G-5

- a. Advise MCBQ LPM annually of the status of the Operational and Maintenance (O&M) Program.
- b. Notify the MCBQ LSPM before commencing operations believed to generate any amount of airborne lead in MCBQ housing units, playgrounds, buildings, and structures.
- c. Inform MCBQ LSPM of results of all analysis performed on water for lead in drinking water quality standards if it exceeds the standards.
- d. Ensure lead containing waste material is disposed of per applicable Federal, State laws, and local regulations.
- e. Maintain local exhaust ventilation systems used to control personnel exposure to lead.
- f. Initiate and maintain a contract for analysis of suspected lead containing material.

4. Commanders/Activity Heads

- a. Ensure work operations using lead or materials containing lead are conducted per this manual and references (d), (g), and (v).
- b. Budget resources to meet lead control requirements, per Federal and state laws, and local safety and OH regulations.

5. Supervisors

- a. Notify the Safety Division LPM and NHCL IH before commencing operations believed to generate any amount of airborne lead.
- b. Ensure personnel are trained and are knowledgeable in the work to be conducted, per reference (fff).

- c. Ensure personnel receive required medical surveillance.
- d. Provide technical support and guidance on written aspects of the Lead Safety Program.
- e. After consulting with the MCBQ LPM and IH, provide required personal protective equipment (PPE) for personnel.
- f. Notify MCBQ LSPM and IH of any significant change in the process or equipment that may affect personnel exposures to lead.
- g. Establish work-center standing operating procedure (SOP) and coordinate initial and annual reviews with MCBQ LPM, NHCL IH, and Natural Resources and Environmental Affairs (NREA) Branch, G-5.
- h. Contact NREA for disposal of lead containing waste, scrap, debris, containers, equipment, and clothing.
- i. A copy of the lead standard, references (v) or (ggg), and its appendices, and any other materials from Occupational Safety and Health Act (OSHA) pertaining to lead will be readily available to all personnel working with lead where there is a potential exposure to lead at any level. This material, and the work center lead SOP, will be presented to personnel by the supervisor prior to or at time of assignment and at least annually thereafter.

6. Personnel Working with Lead

- a. Comply with established work control procedures.
- b. Properly wear or use prescribed PPE.
- c. Report to the supervisor any observed unsafe/unhealthful work condition or work practice.

16005. LEAD EXPOSURE CONTROLS

1. General Controls

- a. Permissible Exposure Limit (PEL) and Action Level (AL)
- (1) The PEL for an 8-hour time-weighted average (TWA) exposure to airborne lead is 50 micrograms per cubic meter (ug/m^3) of air. Engineering and administrative controls shall be

implemented, to the extent feasible, to reduce the exposure to below the PEL when an employee's exposure exceeds the PEL for more than 30 days a year. Whenever engineering and work practice controls are not sufficient to reduce exposure to or below the PEL, engineering controls shall nonetheless be use to reduce the exposure to the lowest feasible level and supplement them by use of respiratory protection.

(2) The AL for an 8-hour TWA exposure to airborne lead is $30~\text{ug/m}^3$ (without regard to respirator use). Exposure at or above the AL for more than 30 days per year shall require biological monitoring and medical surveillance.

b. Respiratory Protection

- (1) All respirators shall be National Institute for Occupational Safety and Health (NIOSH)/Mine Safety and Health Administration (MSHA) approved. High efficiency particulate air (HEPA) filters will be used.
- (2) Lead workers will be required to be fit-tested annually per reference (g).
- (3) Personnel must be medically qualified by OH, NHCL before making an appointment for respirator fit-testing and training with the Respiratory Protection Program Manager (RPPM).
- c. <u>Basic Principles</u>. Basic principles for controlling hazards in occupational environments will be employed including substitution with less hazardous materials, engineering controls, administrative controls, and use of PPE, in that order.
- d. <u>Housekeeping</u>. Work surfaces will be maintained as free of lead dust as is practical and will be cleaned up with a HEPA filtered vacuum cleaner. Personnel may only use wet sweeping and brushing when vacuuming or other equally effective methods have been tried and found to be ineffective or infeasible. Tri-sodium phosphate based cleaners are recommended. Compressed air and dry sweeping will not be used to clean surfaces or clothing.
- e. <u>Personal Hygiene</u>. Eating, drinking, chewing or smoking tobacco products, application of cosmetics and storage of food products is prohibited in lead work areas. Washing hands is important to minimize potential ingestion of lead particles.

f. <u>Warning Signs</u>. Warning signs shall be used at each location where airborne lead may exceed the PEL. These signs may contain a listing of required PPE and shall state as a minimum, in black letters on a yellow background:

WARNING

LEAD WORK AREA

POISON

NO SMOKING, EATING, OR DRINKING

2. <u>Corrosion Control Operations</u>

- a. Shrouded tools shall be used to collect dust at the point of origin and a vacuum equipped with HEPA filters will be used to capture the lead contaminated dust. Emissions shall not be exhausted into another workspace. At no time will a non-HEPA vacuum be used.
- b. Specific vacuum and ventilation requirements will be determined by the MCBQ LSPM and IH.

3. Facility Maintenance Operations

- a. The wet method will be used when removing lead containing paints. Power sanding and hand sanding is prohibited.
- b. Additional requirements may be necessary based on the IH evaluation.

4. Indoor Firing Ranges and Weapons Testing Facilities

- a. Local exhaust ventilation will be the primary means of controlling exposure. Used filters will be disposed of by contract personnel per Federal and State laws, and local regulations.
- b. Range and trap cleaning of lead will be performed by contract personnel with oversight conducted by Public Works Branch.

16006. TRAINING AND EDUCATION

1. For purposes of training, designated lead workers are defined as those personnel who are exposed to airborne lead concentrations

in excess of the OSHA action level which is 30 micrograms per cubic meter (ug/m3) on a full shift TWA basis (i.e., at least 7 hours). All training for lead workers will be per reference (fff). Initial training and qualification shall be conducted before allowing any designated lead worker to work with or be exposed to lead dust or fumes. Refresher training will be conducted annually thereafter. Training will include the following:

- a. Description of operation(s) and specific hazards.
- b. Protective measures in effect or planned (i.e., engineering controls, change rooms, laundry facilities, PPE, etc.).
- c. Respiratory protection if entered into the Respiratory Protection Program.
 - d. Medical Surveillance Program.
 - e. Health effects of lead.
 - f. Review of lead regulations.
 - g. Employees rights and responsibilities.
 - h. Employee notification and monitoring results.
- 2. Residents of MCBQ housing will be informed by the Family Housing Office of the presence of lead prior to occupancy as well as their responsibilities. Health educational material, required by Environment Protection Agency (EPA) and Housing and Urban Development (HUD), will also be provided.

CHAPTER 17

RADIATION SAFETY PROGRAM

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CHAPTER 17

RADIATION SAFETY PROGRAM

- 17000. <u>PURPOSE</u>. This chapter provides the policy, assigns responsibility and presents requirements for the administration of the Marine Corps Radiological Controls (RADCON) Program as a component of the Marine Corps Safety Program.
- 17001. <u>BACKGROUND</u>. The Marine Corps uses radiological material to help accomplish its mission. The Marine Corps Base, Quantico (MCBQ) Radiation Safety Program will manage the radiation hazard from that material. Reference (hhh) establishes the Radiation Safety Program for the Marine Corps and delineates and enacts the program elements necessary to ensure compliance with the Department of the Navy's NRC Master Materials License and specific Naval Radioactive Materials Permit (NRMP) issued to Marine Corps commands.
- 17002. $\underline{\text{SCOPE}}$. This chapter applies to all Marine Corps commands aboard MCBQ that procures, possesses, use or are responsible for the training of users of sources of ionizing radiation. It does not apply to those fixed or portable medical or dental x-ray generating devices used by medical or dental clinic personnel in support of Marine Corps operations.
- 17003. <u>POLICY</u>. This chapter establishes a formal RADCON Program within MCBQ with the responsibility of unit commanders, radiation safety officers (RSO), supervisors and individual radiation workers to minimize the risk of injury to personnel and the general public, avoid contamination of personnel and facilities and prevent the loss of control of sources of ionizing radiation. The ultimate goal is to keep ionizing radiation exposure to a level, "As Low As Reasonably Achievable" (ALARA).
- 17004. PROGRAM MANAGEMENT. As required by reference (hhh), the Commander, Marine Corps Base, Quantico (Comdr MCBQ) will appoint, in writing, a qualified Installation Radiation Safety Officer (IRSO) and assistant IRSO, (AIRSO). Whenever possible, the IRSO/ARSO shall be assigned from the Safety Division and are

responsible for coordinating the RADCON Program for sources of radiation under the control of Marine Corps units aboard MCBQ.

17005. BASIC PROGRAM ELEMENTS

1. Duties of the IRSO/ARSO will include:

- a. Develop and implement the MCBQ Radiation Safety Order and publish and distribute applicable messages, bulletins or notices as required.
- b. Recommend the appointment of Assistant IRSO (AIRSO) and Radiation Protection Officers (RPO) to the Comdr MCBQ in sufficient numbers to administer the RADCON Program. The AIRSO will be fully trained as an AIRSO. In the temporary absence of the IRSO, the AIRSO will fulfill the IRSO's duties.
- c. Establish and implement an appropriate training program for RPOs and all installation personnel who are involved in the receipt, maintenance, handling, storing, packaging, transferring and shipping of radioactive commodities.
- d. Coordinate and direct the actions of the RPOs in the administration of the RADCON Program.
- e. Perform required leak tests (wipe tests) to applicable radioactive sources per the procedures in the NRMP and forward the leak test packages to the Logistical Radiation Safety Officer (LRSO) via certified mail for evaluation.
- f. Dispose of low-level radioactive waste (LLRW) through the Navy LLRW Program. Coordinate the disposal of LLRW with Naval Sea Detachment (NAVSEADET) Radiation Assistant Safety Officer (RASO) and provide a copy of the manifest to the LRSO.
- g. Ensure proper handling and control of radioactive materials including receipt, storage and shipping operations at all Quantico activities and tenant commands.
- h. Maintain an active liaison with tenant command Radiation Safety Officers (RSO) and RPOs.
- i. Maintain an accurate an up-to-date inventory of radioactive sources aboard MCBO. Installation inventory reports shall be

reconciled with the previous inventory to account for changes or discrepancies. The report will include statements of losses and additions or updates. Inventory reports will be submitted to the LRSO per the latest NRMP periodic requirements. Maintain up-to-date inventory copies of all MCBQ activity and tenant commands. Seek assistance from the LRSO for inventory reconciliation during activity decommissions. The format for these periodic inventories is provided as attachment A. Commands may modify this format as long as all required information is provided. Annual inventories are required by 1 April, every year.

- j. Provide list of inventories and storage locations of radioactive material and commodities to the Fire Department and other designated emergency response personnel.
- k. Coordinate the procurement of any generally-licensed or license-exempt radioactive devices with the LRSO and or Safety Division, Headquarters, Marine Corps.
- 1. Prevent the unauthorized transfer or delivery of any radioactive material to DRMO via an established Standard Operating Procedure and close liaison.
- m. Conduct and document annual reviews of the MCBQ Radiation Controls Program using the checklist in attachment B. Results will be reported to the LRSO.
- n. Coordinate health issues of the RADCON Program with the Radiation Health Officer, located at the Naval Health Clinic.
 - o. Schedule and Chair a periodic Radiation Safety Committee.
- p. Attend and pass the 2 week RSO Course (S-4J-0016) from the Naval Sea Systems Command Detachment, Radiological Affairs Support Office (RASO).
- 2. The commander/activity head of the following activities will appoint a RPO in writing:
- a. Assistant Chief of Staff (AC/S), G-5 (Transportation Management Office).
 - b. Commanding Officer (CO), Weapons Training Battalion.
 - c. CO, Marine Corps Air Facility (HMX-1).

- d. Head, Air/Ground Museum.
- e. CO, The Basic School (TBS).
- f. CO, Officer's Candidate School (OCS).
- g. CO, Security Battalion (Fire Department).
- h. AC/S, G-4 (Ordnance Maintenance).
- 3. The duties of the RPO include:
- a. Assist the IRSO/AIRSO in the administration of the RADCON Program.
- b. Maintains an updated inventory of all radioactive material at their activity. A format sample is provided in Attachment A. Forward a copy to the IRSO, annually or as directed. This report is due 1 April each year.
- c. Conduct and document quarterly inspections of radioactive material storage sites to ensure an accurate inventory of items is current and that required warning signs are present.
- d. Contacts the IRSO before any radioactive material is to be received by or shipped from the activity. This ensures proper shipping, receipt and tracking requirements are maintained.
- e. Receives initial and annual refresher radiation safety training that is commensurate with their duties and responsibilities.
- f. Post standard operating procedures (SOP) and emergency action plans in radioactive material storage areas.
- g. Maintain radioactive material storage areas per the specific requirements listed in paragraph 17010.
- h. Provide initial and periodic radiation safety awareness training to activity personnel with potential exposure.
 - i. Attend and participate on MCBQ Radiation Safety Committees.
- j. Report incidents immediately by phone to their Command Duty Officer and the IRSO at 703-784-2866. After hours emergencies

will be reported to the MCBQ Chief of the Day at 703-784-2707.

- 4. As per reference (hhh), the Commanding Generals at Marine Corps Combat Development Command (MCCDC) and at the Marine Corps Systems Command (MARCORSYSCOM) will appoint Command Radiation Safety Officers and assistants (CRSOs/ACRSOs) in writing. Their duties are specifically outlined in reference (hhh). Their relationship with the IRSO is expected to include:
 - a. Inventory maintenance and disclosure.
 - b. Receipt and shipment of radioactive material aboard MCBQ.
- c. Notification of contractors/vendors bringing radioactive material aboard MCBQ will follow the guidelines listed in paragraph 17011.
- d. Spills, exposures or other emergencies involving radioactive material aboard MCBQ.
- 5. Engineers-in-Charge and other contracting authorities often contract with outside sources that use Soil Density Meters. These testing instruments contain sealed radioactive sources that when brought aboard MCBQ, will require the contractor to provide the IRSO with the following documentation:
- a. A "Certificate of Competent Authority," for the operator or supervisor is presented.
- b. The meter is stored and transferred in a case that meets the strict Type "A" packaging requirements.
- c. The meter will be locked in its case in a locked vehicle if kept on MCBQ overnight.
- d. The surface dose rates of the instrument will not exceed 20.5 mrem/hr. Provide latest testing certification.
- e. The IRSO will be afforded a copy of this documentation for review and comments at least 14 days before scheduled arrival.
- 6. The CO HMX-1 will ensure that X-ray radiography is conducted per Federal, Department of Defense DoD, Navy and Marine Corps standards.

- 7. The Commanding Officer, Naval Health Clinic (CO NHCL) will provide radiation physicals and emergency exposure medical surveillance examinations per reference (iii). The Radiation Health Officer will maintain close liaison with the IRSO and provide medical guidance in radiation health matters.
- 8. Maintenance on tritium devices will be strictly limited to the Optics Shop at the Ordnance Maintenance Section, building 3045. Radioactive items taken from a MCBQ activity to OMS for work do not require special packaging, labeling or manifests, but must be properly secured in a government vehicle for transport.
- 17006. TRAINING. Personnel involved in the procurement, use, maintenance, shipping, and storing of ionizing radioactive material will receive training commensurate with their occupational exposures. Radiation training will develop employee awareness of the increase in risk associated with this material and foster safe operating procedures to reduce unnecessary risks and reduce the seriousness and severity of exposures and incidents.
- 1. Training requirements for various occupations are specified in the Naval Sea (NAVSEA) Radiological Affairs Support Program (RASP) Manual (S0420-AA-RAD-010) and include:
- a. <u>Radiation Workers</u>. Those individuals with expected occupational exposures over 0.5 remain (rem)/yr, such as: radiac calibration laboratory technicians, Depot level maintenance technicians, analytical x-ray users and soil density meter operators. They require 8 hour initial training and 4 hour annual refresher training. There currently are no billets at MCBQ in this category.
- b. Limited Workers and Radiation Protection Officers. Those individuals not exposed on a regular basis, yet come in occupational contact with radioactive material. These occupations include: armory personnel, shipper-receivers, CH-53 blade mechanics, Ordnance Maintenance optical technicians and inspectors. They will receive initial and annual refresher training by the IRSO/AIRSO or HMX-RSO specific to their workspace and hazards the individual could reasonably encounter and covering topics listed in the RAD-10. This training will be documented by the IRSO/AIRSO or HMX-RSO.
- c. <u>Emergency Personnel</u>. Firefighters, security, medical and other personnel who, in the response to an emergency, may be

exposed to ionizing radiation sources or devices, will receive initial and annual refresher training on how to protect themselves from the hazards involved. The initial training will be 2 hours in length and cover topics listed in reference (hhh) and contain pictures and numbers of buildings that contain the various types of radioactive material found on the MCBQ inventories. Annual refresher training will cover the scope of the initial training along with the discussion of locations of additions or deletions of radioactive sources. Training will be conducted and documented by the IRSO/AIRSO or designated representative.

- d. Other Command Personnel and Visitors. Those personnel who infrequently handle items or devices containing radioactive sources or work in or frequent areas adjacent to radioactive material storage areas, may develop concerns about radiation exposure due to the radiation warning signs and general radiation misconceptions about this subject. To allay concerns and enhance awareness, a general awareness radiation safety briefing will be drafted and presented by the RPA/RPO of the specific work area. Topics to be discussed include: need to heed warning signs and boundary markers, nature of potential exposures, biological hazards of radiation, and what is being done to protect them from radiation exposure. All personnel should be encouraged to contact the IRSO/AIRSO or workplace RSO for additional questions on radiation exposure in their work area.
- 2. Marine Corps Combat Development Command and Marine Corps Systems Command Radiation Safety Officer and Assistants. Attend the formal two week RASO class or other radiation safety training courses approved by the Radiological Controls (RADCON) Office at the Marine Corps Logistics Command. Although no formal refresher training is required for these positions, program updates and other pertinent information may be obtained by attending annual Radiation Safety Conferences put on by RADCON.
- 17007. EMERGENCY ACTION PLAN. In the event of spill, fire, explosion or damage to radioactive devices that could cause the release of radioactive material to the environment or personnel exposure, the following procedures shall be followed:
- 1. Stop the spill and evaluate for external radiation or contamination levels.
- 2. Warn all persons in the area of the emergency and evacuate the area immediately.

- 3. Isolate the area of the spill with cordons or physical barriers.
- 4. Minimize the spread of contamination and exposure of personnel to radiation and contamination.
- 5. Shut-off heating, ventilation, heating and air conditioning equipment to prevent the spread of possible airborne contamination. For incidences involving broken tritium gas sources, all personnel will vacate the area (or building as appropriate) and move upwind for at least 30 minutes. If in a building, open windows and leave doors open.
- 6. Notify the following activities and indicate the involvement of radioactive material:
 - a. MCBQ Fire Department at 911.
 - b. MCBQ Radiation Safety Officer at 703-784-2866.
 - c. Provost Marshal's Office at 703-784-2251/52/53.
 - d. Naval Health Clinic at 703-784-1699.
 - e. MCBQ Command Duty Office at 703-784-2707.
- 7. In all cases involving emergencies with radioactive material, first aid, emergency medical treatment and evacuation of personnel will always take priority over control of radiation.

17008. CONTAMINATION CONTROL

- 1. Packages or devices with broken sources should only be handled while wearing rubber or latex gloves.
- 2. Broken devices should be doubly wrapped in two plastic bags and sealed with tape. Label the packages as containing a device contaminated with radioactive material. Retain all broken or non-illuminating devices for disposal as radioactive waste.
- 3. Personnel who may have received contamination on bare skin should wash with a mild soap and plenty of tepid water. Transport contaminated personnel to the main Navy Health Clinic for evaluation.

- 4. For personal exposure to tritium, a bioassay may be required. This is a urine sample that may be collected at any Navy Health Clinic aboard MCBQ. It is imperative that this urine collection is provided not sooner than 4 hours post exposure and not longer than 24 hours post exposure.
- 5. Areas contaminated may not be open for normal access until resolution by the IRSO that contamination did not occur or contamination levels have dropped below the allowable limits.

17009. RECEIPT AND SHIPMENT OF NRC-LICENSED MATERIALS

- 1. All materials and equipment with radioactive components shall be shipped from and received by the MCBQ Transportation Management Office (TMO), Building 2009. No individual units may ship or receive these items directly.
- 2. Other activities wishing to receive radioactive items directly, must meet all specific training and storage requirements outlined in reference (hhh). The IRSO will inspect for compliance prior to any activity being granted the authority to send or receive radioactive material.
- 3. Only designated and qualified personnel shall receive or handle radioactive material.
- 4. All packages containing radioactive material shall be surveyed as soon as possible after being received in an incoming shipment. If the package shows signs of damage (crushed, wet or visible damage), contact the IRSO and hold the delivery vehicle for monitoring of possible contamination.
- 5. Packages shall not be opened at TMO unless directed by the IRSO/AIRSO.
- 6. All radioactive packages, either received or shipped, shall be reviewed by the IRSO/AIRSO for the need for surface monitoring.
- 7. The shipping activity shall verify that has authorization to receive the type and amount of radioactive material. The receiver shall be officially notified of incoming radioactive material, prior to shipment.
- 8. Before shipment, the packages shall be inspected for damage, leakage and radiation level (if required) and for proper classification, marking, labeling and certification.

- 9. Standard operating procedures (SOP) for the shipment and receiving of radioactive material shall be written, reviewed and posted by TMO. They will be reviewed annually by the IRSO.
- 17010. STORAGE AREAS. Store radioactive materials in secure areas that meet the following guidelines:
- 1. Access shall be limited to the RPO and designated individuals.
- 2. Do not store in office spaces, food storage areas or berthing areas.
- 3. Containers of radioactive material shall be labeled, "Caution Radioactive Material," using the traditional black (or magenta), three-bladed propeller on a yellow background. In addition, the following signs (available from the IRSO), shall be posted at the entrance:
 - a. Caution Radioactive Material.
 - b. NRC Form 3, Notice to Employees.
 - c. Section 206, Energy Reorganization Act of 1974.
 - d. Notice of availability of documents.
- 4. Storage areas containing radioactive gases, tritium-containing devices, or radium will be well ventilated.
- 17011. EXPERIMENTAL AND RESEARCH ITEMS. Commands and activities that desire to bring aboard items (both military and private industry property) that contain radioactive material for research, experimentation or demonstration must adhere to the following quidelines:
- 1. Within 14 days of arrival, provide a copy of the NRC license or permit, as well as a detailed description of the item to include the isotope, activity level and location of radioactive source(s) for the IRSO to review.
- 2. When approved by the IRSO, notify TMO to anticipate the items' arrival.
- 3. When not in use, the radioactive item will be properly secured in an approved storage area as described in paragraph 18010. Items

that are part of an experimental vehicle will require additional secure storage requirements. The IRSO/AIRSO will be contacted to approve all storage areas for items and vehicles.

- 4. Notify the IRSO when the item is to leave MCBQ.
- 5. Disclose any special safety requirements for the item.
- 6. Provide emergency contact telephone numbers in the event of damage, spill or leak.

17012. <u>DISPOSAL OF BROKEN, USERVICABLE OR SURPLUS RADIOACTIVE</u> MATERIAL

- 1. Under no circumstance will broken, unserviceable or surplus radioactive material be disposed of via general waste or taken to the Defense Reutilization and Marketing Office (DRMO), but shall be coordinated with the IRSO/AIRSO for collection and disposal through the Navy Low Level Radioactive Waste (LLRW) Disposal Program.
- 2. Broken, unserviceable and surplus radioactive material will be transferred from the owning activity to the Safety Division on a DD Form 1348, Issue Release/Receipt Document with both parties receiving copies. Radioactive material inventories must be annotated to reflect the loss and gain at each activity.
- 3. Items that cannot be decontaminated or repaired shall be disposed of as radioactive waste and coordinated via RASO.
- 4. The IRSO/AIRSO will coordinate the pick up of all LLRW material through NAVSEADET RASO.
- 17013. GENERALLY-LICENSED. Figure 2 provides a list of radioactive items that are found aboard MCBQ and are covered by a general license that allows commands to transfer these items to other commands holding a license or NRMP, which authorizes receipt of these items. Generally-licensed items are subject to the provisions of this manual, which include: proper training, inventories, storage, disposal, shipping, packaging and transporting.
- 17014. EXEMPT ITEMS. Figure 3 provides a list of items that contain such a low amount of radioactivity that they are considered exempt from restrictions of an NRC license or NRMP. Although exempt, these items must still adhere to the pertinent RADCON provisions as generally-licensed items.

CHAPTER 18

ASBESTOS CONTROL PROGRAM

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CHAPTER 18

ASBESTOS CONTROL PROGRAM

- 18000. <u>PURPOSE</u>. This chapter provides the policy, assigns responsibility and present requirements for the Marine Corps Base, Quantico (MCBQ), Virginia Asbestos Control Program. The primary objective of this program is to eliminate personal and environmental exposure to asbestos containing materials (ACM).
- 18001. <u>BACKGROUND</u>. Asbestos is a general term that applies to a variety of naturally occurring minerals, including chrysotile, amosite, crocidolite, tremolite, actinolite, and anthophyllite. Asbestos is generally a fibrous material that is noncombustible and possesses a high tensile strength, good thermal and electrical properties, as well as good chemical resistance. For many years, general industry used ACM for machinery and piping system insulation, roofing materials, flooring materials, caulks, structural fire-proofing, acoustical insulation, and dozens of household products. Asbestos exposure is recognized as a serious health hazard associated with various lung diseases, including asbestosis, lung cancer, and mesothelioma. Exposure occurs by breathing airborne microscopic asbestos fibers.
- 18002. <u>SCOPE</u>. This chapter applies to all asbestos-related work performed, scheduled or unscheduled, at MCBQ and its activities. It is applicable to military, civilian, and contractor employees.
- 18003. POLICY. The goal of the MCBQ Asbestos Control Program is to eliminate asbestos-related disease among our military and civilian personnel, as well as, our families and guests. It is Marine Corps policy to eliminate asbestos exposure by substitution of building materials with non-asbestos materials and through the use of personal protective equipment (PPE) and engineering controls while executing the operations and maintenance plan that manages our ACM.

18004. RESPONSIBILITIES

1. <u>Commander, Marine Corps Base, Quantico (Comdr MCBQ)</u>. Shall assign, in writing, an Asbestos Program Manager (APM), per reference (d).

- 2. <u>Director</u>, <u>Safety Division</u>. Shall provide management oversight of the Asbestos Control Program, through the APM.
- 3. Asbestos Program Manager. Asbestos program manager shall:
- a. Manage the MCBQ Asbestos Control Program on behalf of the Comdr MCBQ.
 - b. Obtain training per Table 18-1.
- c. Have cognizance of all asbestos related activities onboard MCBQ.
 - d. Coordinate development of asbestos control programs.
- e. Provide asbestos awareness training for MCBQ personnel who do not ordinarily work with asbestos.
 - f. Maintain training records required per reference (jjj).
 - g. Coordinate laboratory analysis of asbestos samples.
- h. Record results of asbestos surveys and hold these records indefinitely.
 - i. Notify individuals of asbestos exposure.
- j. Provide technical support and guidance for asbestos hazard operations.
- k. Ensure required equipment and tools for asbestos operations are included in contracts.
- 1. Ensure proper containment to protect workers and the general public from asbestos hazards is included in contracts.
- m. Require contracting officials to receive health and safety plans from contractors before operations begin that may generate asbestos hazards. Evaluate the health and safety plans to ensure Marine Corps personnel and property will not be endangered by contractor operations.
- 4. Superintendent, Department of Defense (DoD) Domestic Department Elementary and Secondary School (DDESS). The Superintendent, (DDESS) shall:

- a. Carry out the responsibilities of the Local Education Agency (LEA) per reference (jjj).
 - b. Ensure notifications are conducted per reference (jjj).
 - c. Provide training to the staff. (See Table 18-1.)
- d. Ensure asbestos inspections are conducted and Asbestos Management Plans are developed tri-annually for each school.
 - e. Ensure periodic surveillance is conducted semi-annually.
 - f. Contract through FEAD (ROICC) for asbestos work.
- g. Maintain asbestos documents (training, inspections, surveys, removal, repair, etc.) at the Logistics Manager's office in Burrows School. The address, phone and fax numbers are 3308 John Quick Road, Quantico, Virginia 22134-1702, 703-784-4837; fax 703-432-1130. Provide copies to the APM.
- 5. <u>Commanding Officer</u>, Naval Health Clinic. The Commanding Officer, Naval Health Clinic shall:
- a. Manage the Asbestos Medical Surveillance Program (AMSP) per reference (g) and (k).
- b. Provide a list of personnel in the AMSP to the APM annually.
 - c. Provide expertise to the APM.
- d. Evaluate, monitor, and make recommendations concerning job-related asbestos exposure.
- 6. <u>Counsel</u>. Provide legal assistance upon request for all phases of the Asbestos Control Program.
- 7. Commanders/Activity Heads. Commanders/Activity heads shall:
- a. Ensure work operations with asbestos are conducted per this manual, references (g), (v), (jjj), and (lll).
- b. Ensure strict adherence to the requirements of this manual by personnel under their command.

- c. Take prompt action to contain and correct asbestos discrepancies when notified of their existence.
- d. Ensure that personnel assume all building materials contain asbestos until they contact the APM to determine otherwise.
- e. Direct requests for technical assistance to the APM at 703-784-2866.

8. Public Works Officer, G-5. The Public Works Officer shall:

- a. Ensure that an adequate number of persons writing contract specifications for renovation and demolition projects successfully complete an Asbestos Hazard Emergency Response Act (AHERA) training course for Asbestos Project Designers, per references (jjj), subpart E; (mmm); and (nnn). The intent is to provide oversight by an accredited Asbestos Project Designer for all renovation and demolition designs that are expected to disturb ACM. See item i below and Table 18-1.
- b. Ensure that all contract representatives, monitors, and inspectors complete an AHERA training course for Asbestos Abatement Supervisors, per per references (jjj), subpart E; (mmm); and (nnn). See item i below and Table 18-1.
- c. Ensure that copies of all asbestos-related training certificates are forwarded to the APM and the servicing Civilian Human Resources Office for recordkeeping purposes.
- d. Ensure that all contract specifications for renovation and demolition projects require strict compliance by contractors with this Order and all listed references.
- e. Ensure that all contract specifications for renovation or demolition projects require contractors to notify the Commonwealth of Virginia and the Environment Protection Agency (EPA) of these projects at least 20 working days prior to commencement of renovation or demolition activity. Notifications shall be made on a form similar to that found in reference (111), subpart M.
- f. Ensure that all contract specifications for renovation or demolition projects require an inspection of all affected areas of a facility for the presence of ACM, prior to commencing renovation or demolition. This inspection must be conducted by an accredited Building Inspector per reference (jjj), subpart E. The building inspector must provide the Commander, Marine Corps Base, Quantico

(Comdr MCBQ) (B 042) with a report of the findings, including a copy of the building inspector's training certificate, a signature, and copies of completed chain of custody forms for air and bulk samples.

- g. Ensure that all submittals required by Naval Facilities Guide Specification: Removal and Disposal of Asbestos Containing Materials Section 13281 have been reviewed and approved by the APM prior to commencement of renovation or demolition activity. Additionally, copies of all daily recordkeeping required by Naval Facilities Guide Specification: Removal and Disposal of Asbestos Containing Materials Section 13281 are to be maintained by public works officer (PWO) with all other contract documents for a period of 30 years.
- h. Ensure that all contract specifications for renovation and demolition projects are reviewed by the APM prior to commencement of contract activity, per references (ooo) and (ppp).
- i. Provide copies of all asbestos-related documents on a compressed disc to the APM monthly.
- j. Contact the APM for technical assistance with asbestos-related problems.
- 9. <u>Director, Facilities and Logistics Services Section (FLSS)</u>. The Director, FLSS shall:
- a. Contract with an authorized vendor to perform asbestos-related activities.
 - b. Maintain a file on each asbestos abatement project.
- c. Ensure copies of all asbestos-related records are forwarded to the APM.
- d. Contact the APM for technical assistance with asbestos-related problems.
 - e. Ensure appropriate staff receive training per Table 18-1.
- 10. All Other Personnel. All other personnel shall:
 - a. Strictly comply with this manual.
- b. Assume all building materials contain asbestos until the APM has determined the contents of those materials.

- c. Report any unusual activity involving, or suspected of involving, asbestos to the APM at 703-784-2866.
- d. Seek technical assistance for asbestos-related issues from the APM, when it is needed.

18005. PROGRAM MANAGEMENT. Procedure for small asbestos projects:

- 1. The unit submits a work request involving asbestos.
- 2. Funding:
- a. Public Works Branch (PWB) or FLSS, as appropriate, will fund the project for units under MCBQ.
- b. The inter-service support agreement (ISSA) will specify who funds the project for units not under MCBQ.
- 3. PWB or FLSS, as appropriate, will contact the contractor.
- 4. Provide copies of the documentation to the APM.

	DEDCOMME		7 3 T 3 T 7 T
OPERATION	PERSONNEL	INITIAL TRAINING	ANNUAL
		REQUIRED	TRAINING
			REQUIRED
Design asbestos	PWB, A & E	3 day - Abatement	Yes
removal projects	Head	Project Designer	
	Environmental Engineer		
	Planner		
	Estimator		
Review asbestos	PWB, A & E	3 day - Abatement	Yes
removal projects	Head	Project Designer	
	Environmental Engineer		
Responsible for	PWB, FEAD	5 day - Asbestos	Yes
asbestos	Supervisor General	Abatement	
removal, project	Engineer	Contractor/Sup	
oversight, etc	AROICC's		
	PWB, FSC		Yes
	Contract Surveillance		
	Rep		
Bulk sampling	PWB, Operations	3 day -Asbestos	Yes
for lab ID	Engineering	Inspector	162
TOT TAD ID	Technicians	liispectoi	
Donalos Askaskas		2 4 7	Yes
Develop Asbestos	FLSS	2 day - Asbestos	res
Management	Facility Inspector's	Management Planner	
Plans, Asbestos			
0 & M Plans	77.00		
Work where	FLSS, Service Shop	2 hour - Asbestos	Yes
asbestos is	MCCS, Support Branch	Awareness	
present	(Facilities)		
	VDDESS		
	Superintendent (LEA)		
	Principals		
	Custodians		
	Laborers		
Repair, maintain	VDDESS	16 hour - O & M	Yes
TSI and	Supervisor, Cust/Maint		
surfacing PACM	Maintenance worker		
APM	Safety Division	5 day - See above	Yes
	APM	3 day - See above	
		2 day - See above	
	l 10 1 Aghagtag Twaini		1

Table 18-1. Asbestos Training Requirements.

CHAPTER 19 GROUND ANONYMOUS SAFETY REPORTING PROGRAM "ANYMOUSE"

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BASIC PROGRAM ELEMENTS							
FIGURE							
19-1 MARINE CORPS GROUND ANONYMOUSE SAFETY REPO	ORTING						
PROGRAM (ANYMOUSE)		19-5					

CHAPTER 19

GROUND ANONYMOUS SAFETY REPORTING PROGRAM "ANYMOUSE"

- 19000. <u>PURPOSE</u>. This program will allow an individual Marine or civilian employee to voice valid safety concerns without fear of retribution.
- 19001. <u>BACKGROUND</u>. The Anymouse Program has existed in Marine Corps aviation since the early 1950's. Since its inception, personnel of all ranks assigned to aviation units have used the "Anymouse" program to bring safety concerns to the command's attention. "anymouse" is intended to encourage personnel to make voluntary reports of safety concerns that they are not comfortable reporting through the established chain of command or reporting channels.
- 19002. <u>SCOPE</u>. This chapter applies to all units/organizations at Marine Corps Base, Quantico (MCBQ). It is applicable to military and civilian employees.
- 19003. <u>POLICY</u>. The goal of the MCBQ "Anymouse" Program is to eliminate hazardous conditions/acts from among our military and civilian personnel, our families and guests.

19004. PROGRAM MANAGEMENT RESPONSIBILITIES

1. <u>Commanders/Activity Heads</u>. Ensure all personnel are briefed on the "Anymouse" Safety-Reporting Program.

2. Safety Officer/Unit Safety Representative

- a. Ensure forms (figure 1) and a receptacle are placed in a discreet area of each unit/organization allowing easy access for all personnel.
- b. Check the receptacle and address all safety concerns with the commanding officer/executive officer monthly.

19005. BASIC PROGRAM ELEMENTS

- 1. Anonymity is key in the success of this program and will be preserved.
- 2. The majority of "Anymouse" reports will be resolved at the local level. In the event personnel have a safety concern which they are not able to voice within the command, they should utilize higher headquarters "anymouse" boxes or forward the completed form via mail or FAX to CMC (SD) for resolution. FAX to the following: 703-695-3231 or DSN 225-3231. Anonymity will be preserved.
- 3. Completed "anymouse" forms that highlight conditions such as design or manufacturing flaws, and/or have lessons learned value to other units, should be released as a Hazard Report by the unit safety officer per reference (a).

Please fill out this form as completely as possible and return to your unit Safety Office.

MARINE CORPS GROUND ANONYMOUS SAFETY REPORTING PROGRAM

Marine Information		
Crew Position (Mech, Rif Primary Qualification	Eleman, etc.)	
Total Years in Service	Years MOS experience	
Environmental Informat		
Date/Time	Location	
Type Equip	 Tool used	
Mission	<u> </u>	
Light Conditions	Phase of Event	
Significant WX		
Additional information	n	
Use additional paper i	rent/situation in as much detail and formula and second se	as possible.
	-	
	Annual Control	
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44 (65)		in la

Figure 20-1.--Marine Corps Ground Anonymous Safety Reporting Program (Anymouse).

Did any of the following contribute to the incident? Please explain. Use additional paper if necessary.
Violation (i.e., breaking SOP, breaking TM, etc.):
Maintenance/material issues:
Facilities issues:
Other:
Supervisory condition (i.e., inadequate SOP, etc.):
Medical condition (i.e., fatigue, stress, etc.):
Crew coordination (i.e., conflict, assertiveness, etc.):
<pre>Inattention (missed radio call, forgotten check list, etc.):</pre>
Please list your recommendations to prevent this situation from occurring in the future. Use additional paper if necessary.

Figure 20-1.--Marine Corps Ground Anonymous Safety Reporting Program (Anymouse)--Continued.

CHAPTER 20

ERGONOMICS

												PARAGRAPH	PAGE
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CHAPTER 20

ERGONOMICS

20000. DISCUSSION

- 1. This chapter establishes procedures and requirements to implement an ergonomics program per reference (mm). Ergonomics is the field of study that involves the application of knowledge about human capacities and limitations to the planning, design and evaluation of work places, jobs, tasks, tools, equipment, and the environment. Ergonomics is essentially fitting the work place to the worker.
- 2. The primary goal of ergonomics in the work place is to reduce the risk of injuries and illnesses (cumulative trauma disorders or CTDs) by reducing or eliminating worker exposure to work related musculoskeletal disorder (WRMSD) hazards.
- 20001. PURPOSE. To prevent injuries and illnesses by applying ergonomic principles to identify, evaluate, and control ergonomic risk factors for WMSDs. The purpose will also effectively use ergonomic practices to maintain high levels of productivity, avoiding painful and costly employee injuries, and increasing worker satisfaction. By designing the job around the person, employees will have a decreased risk of injury and an improved perception of their role at work.

20002. BACKGROUND

- 1. In recent years, there has been an increase in reporting of WMSDs such as strains/sprains, back injuries, carpal tunnel syndrome for Marine Corps personnel. Some of this increase can be attributed to changes in work processes, such as automated office equipment, and associated work center risks. Through advanced information and technology and training, Marine Corps personnel have an increased awareness of these disorders and more are being reported.
- 2. WMSDS represents over half of all rated military disabilities and over one-third of all reported civilian injuries and illnesses within the Marine Corps.

- 3. WMSDs are defined as a class of disorders involving damage to the muscles, tendons, tendon sheaths, and related bones, and nerves. They may also be known more specifically as repetitive strain injuries (RSI); Cumulative Trauma Disorders (CTDs) and Overuse Syndrome. WMSDs result from the cumulative effect of repeated traumas associated with specific workplace risk factors. Risk factors include but are not limited to:
- (a) <u>Force</u>. The amount of physical effort required to maintain control of equipment or tools or perform a task such as heavy lifting, pushing, pulling, grasping, or carrying.
- (b) <u>Repetition</u>. Performing the same motion or series of motions continually or frequently for an extended period of time with little variation. Examples include prolonged typing, assembling components and repetitive hand tool usage.
- (c) Awkward or Static Postures. Awkward posture refers to positions of the body (limbs, joints, back) that deviate significantly from the neutral position while performing job tasks. For example, overhead work, extended reaching, twisting, and squatting or kneeling. Static postures refer to holding a fixed position or posture. Examples include gripping tools that cannot be set down or standing in one place for prolonged periods.
- (d) <u>Vibration</u>. Localized vibration, such as vibration of the hand and arm, occurs when a specific part of the body comes into contact with vibrating objects such as powered hand tools (e.g., chain saw, electric drill, chipping hammer) or equipment (e.g., wood planer, punch press, packaging machine). Whole-body vibration occurs when standing or sitting in vibrating environments (e.g., operating a pile driver or driving a truck over bumpy roads) or when using heavy vibrating equipment that requires whole-body involvement (e.g., jackhammers).
- (e) <u>Contact stress</u>. Results from occasional, repeated or continuous contact between sensitive body tissues and a hard or sharp object. Examples include resting the wrist on a hard desk edge; tool handles that press into the palms or using the hand as a hammer.
- 4. When present for sufficient duration, frequency, magnitude, or in combination, these risk factors may cause WMSDs. In addition, personal risk factors, such as, physical conditioning, existing

health problems, gender, age, work technique, hobbies and organizational factors (e.g., job autonomy, quotas, deadlines) may contribute to but do not cause the development of WMSDs.

Additionally, environmental conditions such as working in temperature extremes may contribute to the development of WMSDs.

20003. RESPONSIBILITIES

- 1. Commander, Marine Corps Base, Quantico (Comdr MCBQ) shall:
 - a. Designate a MCBQ Ergonomics Coordinator.
- b. Establish an ergonomics safety team and integrate ergonomics into all phases of the installation safety occupational health (SOH) program.
- c. Approve the installation ergonomics plan based on the recommendations of the ergonomics team & ISM.
- d. Provide sufficient funds and other resources to carry out all responsibilities related to the ergonomics program.
- e. Work with installation personnel, unions, and appropriate Regulatory authorities to effectively address ergonomics issues.
- f. Require that appropriate reporting and record keeping procedures be followed.
 - g. Demonstrate commitment to the ergonomics program.
- 2. Installation Safety managers shall:
- a. Obtain and have available for review the following to the Ergonomics coordinator:
- (1) Log of Federal Occupational injuries and Illnesses (WESS).
 - (2) Federal Employee Compensation Act (FECA) claims.
 - (3) CA-1 Form (Mishap Reporting).
 - (4) Safety records.

- b. Advise the Commander on issues related to ergonomics.
- c. Ensure all supervisors, managers, and employees receive appropriate ergonomics training developed by the ergonomics team, as appropriate.
 - d. Assign a MCBQ ergonomics coordinator.
 - e. Oversee the safety aspects of the ergonomics program.
- f. Coordinate the annual standard Marine SOH inspection with occupational health program personnel, and consider WMSDs during the inspection.
- g. Provide injury and illness records related to WMSDs to the ergonomics team.
- h. Provide ergonomics training and education. Persons tasked to provide training should obtain refresher ergonomics training to maintain expertise.
- i. Perform or assist in performing in-depth ergonomic assessments as needed.
 - j. Assist in solving problems related to identified WMSDs.
- k. Keep accurate records of identified WMSDs and high risk work areas and solutions. Provide these records to the ergonomics team for review and tracking.
- 1. Work with medical personnel in the identification of potential WMSDs and advise medical personnel on ergonomic changes related to the workstation, tasks, and tools.
- 3. Director, Human Resources and Management-Quantico Office shall:
- a. Appoint at least one representative to serve on the ergonomics team. This may be the Injury Compensation Program Administrator (ICPA).
- b. Use the Naval Health Clinic (NHCL) recommendations in the assignment of injured workers to light or restricted duty.
- c. Provide the ergonomics team with information on compensation claims and costs associated with WMSDs to enable them to perform trend analysis.

4. Ergonomics Coordinator shall:

- a. Receive at least 40 hours of formal training in ergonomics (e.g., CIN: A-493-0085 or equivalent).
- b. Chair the ergonomics team and provide interface with the Base Safety Council.
 - c. Serve as the focal point for the MCBQ ergonomics program.
- d. Advocate upper management support, recognition of contributions, and availability of resources.
- e. Develop the MCBQ ergonomics plan with assistance of the ergonomics team and approval of the Comdr MCBQ.

5. The ergonomics team shall:

- a. Receive appropriate ergonomics training.
- b. Assist in the developing and implementing the MCBQ ergonomics plan. Set program goals and objectives, and develop strategies to address issues.
- c. Ensure the MCBQ ergonomics plan requires that trained personnel conduct evaluations of all work centers to assess the risk of WMSDs.
- d. Prioritize existing and potential work center ergonomic risk factors identified in the evaluations and develop corrective action plans.
- e. Develop methods to evaluate the effectiveness of corrective actions and document results. Share effective solutions and lessons learned with supervisors.
- f. Maintain documentation on annual surveys, team meetings, trend analyses, investigations, ergonomic improvements, and associated costs.
- g. Work with medical personnel in the identification of potential WMSDs and advise medical personnel on ergonomic changes related to workstations, tasks, and tools.
- h. Review injury and illness records related to WMSDs, develop trend analyses, and report results to the ergonomics team.

- 6. Industrial Hygiene (IH) personnel shall:
 - a. Serve on the installation ergonomics team.
- b. Consider WMSDs during routine worksite evaluations and annotate any noted WMSDs on IH reports.
- c. Perform or assist in performing in-depth ergonomic assessments as needed.
 - d. Assist in solving problems related to identified WMSDs.
- e. Keep accurate records of identified WMSDs and high risk work areas and solutions. Provide these records to the ergonomics team for review and tracking.
- f. Assist with ergonomics training and education for military and civilian personnel. Persons tasked to provide training should obtain refresher ergonomics training to maintain expertise.
- g. Work with medical personnel in the identification of potential WMSDs and advise medical personnel on ergonomic changes related to workstations, tasks, and tools.
- 7. Health Care personnel shall:
- a. Serve on the MCBQ ergonomics team. A representative from specific health care areas (for example, physician, nurse, occupational and physical therapists, physician assistant) will serve on the ergonomics team.
- b. As a recommendation, develop a written installation protocol for the early recognition, evaluation, treatment, and follow-up of WMSDs between military and civilian personnel.
- c. As a recommendation, develop and conduct baseline medical screening for new personnel whose positions have specific medical standards, physical requirements, or are covered by a medical evaluation programs.
- d. Assist trained ergonomics personnel in the identification of modified or restricted-duty jobs.

Assist in ergonomics training and education.

8. Head, Public Works, G-4 shall:

- a. Integrate ergonomic considerations into facility modifications and construction.
- b. Implement recommendations from trained ergonomics personnel to eliminate or reduce WMSD risk factors when feasible.
- c. Appoint an advisory or support representative to serve on the ergonomics team.
 - d. Ensure engineers and maintenance personnel.
- (1) Prevent and correct WMSDs through job and workstation design and proper maintenance.
- (2) Apply ergonomic concepts both in general and in regard to the specific conditions of the facility.
- 9. Supervisors shall:
 - a. Ensure personnel are trained in ergonomics and
 - (1) Follow safe work practices.
- (2) Recognize, correct, and report hazardous work practices.
 - (3) Recognize and report early symptoms of potential WMSDs.
- b. Routinely review work areas, tasks, and tools for potential WMSD risk factors.
- c. Coordinate with trained ergonomics, safety, and health personnel to reduce risks and support the overall ergonomics program.
- d. Ensure personnel avoid prolonged or repetitive stress on the body by taking breaks and/or changing job schedules when using tools, equipment, tasks which create ergonomic concerns.
- e. Maintain documentation of ergonomics training given to employees.

20004. ERGONOMIC TRAINING.

1. Personnel requiring training:

- a. A key to maintaining an effective ergonomics program is the proper training of managers, supervisors, professional staff, ergonomic teams and employees. General ergonomics training shall be provided to all employees as applicable to the employee's role in the workplace. Periodic refresher training should be provided at command discretion.
- b. Safety and occupational health specialist responsible for conducting the ergonomics program shall complete at least 40 hours of formal training in ergonomics (A-493-0085 or equivalent).
- 2. Personnel who may conduct training:
 - a. Trained ergonomics personnel.
- b. Suitable health care personnel to conduct specific portions of training, such as those related to health risks.

APPENDIX A

DEFINITIONS

ACTIVITY HEAD. The person responsible for a separate command, division, or activity.

<u>ABATE</u>. To eliminate or reduce an unsafe or unhealthful condition and by coming into compliance with the applicable standards criteria or taking equivalent protective measures.

<u>CIVILIAN</u>. Includes General Schedule and Wage Grade workers (including National Guard and Reserve Technicians); Non-appropriated Fund workers; Youth/Student Assistance Program workers.

FIRST LINE SUPERVISOR. The next person up the chain above a worker; has direct control of a worker and/or operation.

MILITARY. Includes all military personnel on active duty, Reserve or National Guard personnel on active duty or in drill status; Reserve Officer Training Corps cadets, when engaged in directed training activities; and Foreign National military personnel assigned to Marine Corps commands.

IMMINENT DANGER. Applies to conditions or practices in any workplace which pose a danger that could reasonably be expected to cause death or severe physical harm immediately or before the imminence of such danger can be eliminated through normal procedures (hazard severity category I or II and mishap probability category A).

<u>INSTALLATION</u>. A facility or grouping of facilities located in the same vicinity that support particular Marine Corps functions. Installations may include locations such as posts, camps, or stations.

QUALIFIED SAFETY and HEALTH PERSONNEL. Includes persons who meet the Civil Service Standards for Safety Director/Specialist GS-018, Safety Engineer GS-803, Safety Technician GS-019, Medical Officer GS-602, Health Physicist GS-1306, Industrial Hygienist GS-690, Occupational Health Nurse GS-610, or other personnel determined to be qualified for Occupational Safety and Health functions.

MILITARY-UNIQUE EQUIPMENT, SYSTEMS, OPERATIONS, OR WORKPLACES. Equipment and systems that are unique to the national defense mission, including the operation, testing, and maintenance procedures dictated by the design configuration. Examples are: military weapons, aircraft, ships, submarines, missiles and missile sites, early warning systems and sites, military space systems, ordnance, tanks, and tactical vehicles. Operations or workplaces that are uniquely military, such as field maneuvers, combat training, naval operations, military flight and missile operations, associated research, test, and development activities, and actions required under emergency conditions.

RISK ASSESSMENT. An expression of potential loss, described in terms of hazard severity, mishap probability, and exposure to hazard.

HAZARD SEVERITY. An assessment of the expected consequence, defined by degree of injury or occupational illness that could occur from a hazard.

ESTIMATED HAZARD SEVERITY. A judgment of hazard severity in which a hazard is classified by an uppercase Roman numeral according to the criteria described in this enclosure.

MISHAP PROBABILITY. An assessment of the likelihood that, given exposure to a hazard, a mishap will result.

EXPOSURE TO HAZARD. An expression of personnel exposure that takes into account the number of persons exposed and the frequency or duration of exposure as depicted in the enclosure.

RISK ASSESSMENT CODE. An expression of the risk associated with a hazard that combines the hazard severity, mishap probability, and personnel exposure into a single Arabic numeral.

<u>HAZARDOUS CONDITION</u>. An existing condition that violates established standards or that could, or will, contribute to a mishap, as determined by qualified safety, fire, or health officials.

<u>UNSAFE ACT</u>. An action that violates established standards that could, or will, contribute to a mishap.

APPENDIX B

CHEMICAL HYGIENE PLAN

	(b)	29	CFR	1910						
	(c)	NEH	IC-TN	191-5						
	(d)	29	CFR	1910.1200						
1. for	(2)		_ is	appointed	as	the	Chemical	Hygiene	Officer	(CHO)
this	site.									

Ref: (a) 29 CFR 1910.91.1450

- 2. Permissible Exposure Limits (PEL) for chemicals used at this site are established in reference (b). The potential for actual worker exposure at this site will be assessed during the industrial hygiene surveys performed by the Occupational Health/Industrial Hygiene (IH) Department of the Naval Health Clinic (NHCL). The results of this assessment will be provided in a formal report.
- a. The current assessment of the most recent survey of this site (dated_3_) is that there is no potential for worker overexposure to any chemicals used in laboratory operations. The working conditions currently in effect are sufficient to prevent overexposure. No local exhaust or additional ventilation needs to be provided to prevent overexposure (if exhaust or other ventilation must be in operation to control exposure, a plan for testing and maintenance of this system must be described).
- b. If exposure conditions change, the IH Department, NHCL, will be contacted at 703-784-2591/3219.
- c. If exposure to chemicals in excess of one-half the PEL is anticipated for 10 days per quarter or 30 days per year, annual medical surveillance per reference MCO 5100.8 will be performed.
- 3. Irrespective of the level of exposure, all workers working with chemicals in laboratory conditions will be provided with information and training per reference (d).
 - a. Training will be performed annually.
- b. Material Safety Data Sheets (MSDS) for chemicals used at this site are located $___4$.

4. Safety and Health SOP

- a. Personnel will use safety eyewear when working with chemicals listed as eye hazardous on MSDS (address of the location of eyewear storage and the location and operation of emergency eyewash, if available).
- b. Personnel will not eat, smoke, or apply cosmetics in the laboratory area, and will wash hands prior to eating, smoking, or applying cosmetics elsewhere.
 - c. (Address other issues such as fire protection).

Key: 1. Site name and location.

- 2. Name of designated CHO.
- 3. Date of most recent industrial hygiene survey.
- 4. Where MSDS for chemicals used in laboratory are retained.

APPENDIX C

EXPOSURE CONTROL PLAN FOR BLOODBORNE PATHOGEN PROGRAM (BPP)

Ref: (a) 29 CFR 1910.1030

- 1. Per the reference, subject plan is put into effect. This plan does not address exposure at the Naval Health Clinic (NHCL) or Dental Clinic (NDCL), which have their own plans.
- 2. Personnel working in the following job classifications have been determined by the BPP Manager to have potential for contact with human blood or blood products in the performance of their duties. Military and civilian workers will receive pre-employment and annual refresher training. Military will receive the hepatitis B vaccination series. Civilians will be offered the vaccination at no charge, on MCBQ and during their working hours.
- a. Firefighters, fire officers, paramedics/rescue personnel and aircraft rescue firefighters.
- b. Security Battalion and the following Brig personnel: corpsman, valuables supervisor, driver, programs/parole chief, counselor, and indoctrination/training supervisor.
- c. Naval Criminal Investigative Services (NCIS) agents as a result of physical contact with violent individuals.
- d. Dependent Schools personnel determined to be, "first responders."
- e. Life guards and pool managers at the All Hands, Officer's pool and Ramer Hall pool.
- 3. Child Development Center, Family Child Care providers, and Larson Gym personnel will receive pre-employment and refresher training only.
- 4. The following procedures are to be taken in the event of an exposure incident:
- a. An individual suspecting exposure shall report as soon as possible (ASAP) to the Occupational Health Department, NHCL.

- b. The exposure assessment and counseling will be performed by a Military Medicine Department provider.
- c. Blood may be drawn at the time of the initial assessment and 6 weeks, 3 months and 1 year thereafter. Every attempt will be made to locate the source patient and blood will be drawn from him/her for analysis.
- d. A specially trained counselor will meet with the potentially exposed individual to discuss treatment plans if any. All medical records shall be held in strict confidence.

5. Methods of Compliance

- a. Universal precautions shall be implemented to help prevent worker contact with blood or other potentially infectious materials (tissue, semen, vaginal secretions, etc.). All human blood and blood products will be treated as infectious, regardless of the age, sex, or background history of the person.
- b. Workers shall wash hands with soap and water as soon as feasible after contact with potentially contaminated infectious materials.
- c. Eating, drinking, smoking, applying cosmetics or lip balm, and handling of contact lenses is prohibited where contact with potentially infectious materials is possible.
- d. Activities involving potentially infectious materials shall be performed in a manner to minimize splashing, spraying and spattering.
- e. Contaminated equipment shall be examined prior to servicing or shipping and decontaminated as necessary. The BIOHAZARD label shall be attached to contaminated equipment.
- f. Personal protective equipment (PPE) will be provided as appropriate. Multiple sizes of PPE will be available. As a minimum, latex gloves will be worn when contact with blood is expected or obvious (first response to an accident scene, patron receives an accidental bloody nose while playing basketball, etc.). Individuals demonstrating an allergic response to latex will be offered alternative glove material. A face shield will be worn when splashing is expected.

- g. Upon leaving work areas, PPE shall be removed to prevent possible exposure to others.
- h. PPE shall be inspected prior to and after use to ensure integrity. Reusable PPE may be washed, cleaned or laundered.
- i. Contaminated surfaces shall be sanitized immediately with 10 percent bleach solution or other suitable disinfectant.

6. Worker Training

- a. The Preventive Medicine Department, NHCL is responsible for training all medical and dental personnel aboard MCBQ.
- b. The Safety Division will train all members identified in paragraphs 2 and 3 at the time of their assignment and annually thereafter.
- c. The 14 topics listed in the references must be addressed during training. An instructor will be present and conduct all training. A question and answer period will be provided following all training.

7. Responsibilities

- a. Safety Division manages the exposure control of MCBQ except for NHCL and Naval Dental Clinic (NDCL).
- b. NHCL HBV immunization, exposure follow-up, and healthcare worker training. Make BBP recommendations during Industrial Hygiene surveys.
- c. MCBQ commands and tenant activities provide PPE and ensure program compliance.

APPENDIX D

INDUSTRIAL HYGIENE SERVICE REQUEST

INSTRUCTIONS. If service is required, complete appropriate
sections

of the form and forward to the Navy Health Clinic, mail stop B 103 (Attn: Industrial Hygiene Department). This form will be useful in planning the service and tracking request completion.

I. WHERE

COMMAND/DIVISION, etc. DEPARTMENT

(Date)

BLDG#/ROOM#/LOCATION:

II. SERVICE REQUEST

BULK SAMPLING

AIR SAMPLING

PROCESS EVALUATION

INDOOR AIR QUALITY SURVEY (complete IV below)

WORKER TRAINING

INFORMATION REQUEST

OTHER

- III. SPECIFIC DESCRIPTION OF SERVICE DESIRED IN II:
- IV. IF INDOOR AIR QUALITY INVESTIGATION PROVIDE the following is applicable:

description of problem date discovered if worker complaint, nature of symptoms number of personnel with symptoms can windows be opened?

V. SIGNATURE PHONE NUMBER

IH USE ONLY

Date received Date resolved Resolution: